

DOCUMENT RESUME

ED 078 552

EA 005 219

TITLE Superintendent's Advisory Committee on School Finance. Occasional Paper No. 2.

INSTITUTION Illinois State Office of the Superintendent of Public Instruction, Springfield. Advisory Committee on School Finance.

PUB DATE Aug 72

NOTE 103p.; Compiled by Department of State Governmental Relations

EDRS PRICE MF-\$0.65 HC-\$6.58

DESCRIPTORS *Advisory Committees; *Educational Finance; Educational Opportunities; *Equal Education; *Equalization Aid; Fiscal Capacity; Full State Funding; Grants; Metropolitan Areas; *School District Spending; School Taxes; State Aid; Tax Effort

IDENTIFIERS District Power Equalization; Grants in Aid; Guaranteed Valuation; *Illinois

ABSTRACT

This document consists of a series of papers by different authors on the subject of school finance and equal educational opportunity. The papers discuss equalizing educational opportunity by means of a resource equalizer or guaranteed valuation grants-in-aid; the impact of changing school finance on metropolitan areas; and three types of equalizing formulas -- resource equalizing, percentage equalizing, and the Strayer-Haig formula currently being used in Illinois. Also considered are the difficulties experienced by schools in meeting their financial commitments because of the rising cost of educational inputs, a simulated application of district power equalization to Illinois, and post-Serrano grant-in-aid proposals in other States. Related documents are ED 060 544, EA 005 217-218, and EA 005 220. (Author/DN)

ED 078552

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

The Office of the
Superintendent of
Public Instruction
State of Illinois
Michael J. Davis
Superintendent

Superintendent's Advisory Committee on School Finance

EA 005 219

No. 2

AUGUST 1972

ED 078552

AN OCCASIONAL PAPER
of
THE SUPERINTENDENT'S ADVISORY COMMITTEE
ON SCHOOL FINANCE

Compiled by:

The Department of
State Governmental
Relations

The Office of the
Superintendent of
Public Instruction
State of Illinois

Michael J. Bakalis
Superintendent

TABLE OF CONTENTS

Introduction	i
Members of the Superintendent's Advisory Committee on School Finance	i
Papers delivered at the March Meeting	
Ben C. Hubbard and G. Alan Hickrod, Equalizing Educational Opportunity by Means of A Resource Equalizer or Guaranteed Valuation Grants-In-Aid	1
Robert N. Schoeplein, The Impact of Changing School Finance on Metropolitan Areas	8
William P. McLure, Comparison of Three Types of Equalization Formulas	24
Comparison of Three Formulas for the Present Illinois Foundation of \$520 per WADA	26
Advisory Committee Discussion	27
May Meeting of the Superintendent's Advisory Committee on School Finance	
Papers Delivered at the May Meeting	
Donald Eslick, Memorandum on Subcommittee Formation	41
Norman Walzer and Joseph Domitrz, The Rising Cost of Educational Inputs	45
Raymond L. Lows, District Power Equalization: An Initial Effort to Simulate Application to Illinois Public Schools	56
William P. McLure, Memorandum	66
G. Alan Hickrod, Post-Serrano Grant-in-Aid Proposals in Other States	74
Advisory Committee Discussion	79

This is the second occasional paper of the Superintendent's Advisory Committee on School Finance. Its purpose is to stimulate discussion on the problems of school finance and to keep the public informed on the progress of the Advisory Committee.

The papers and discussions contained in this volume do not propose or endorse any single solution to the problems of school finance. Rather, they represent preliminary research into the area and are suggestive of the many topics which must be investigated before any alternative to the present system of funding public education can be proposed.

Since the Advisory Committee was formed in December, 1971, several new school finance court decisions have been rendered. The call for reform of present methods of financing elementary and secondary schools echoes throughout these decisions. In Minnesota, Texas, and New Jersey new finance systems are being developed. The formation of three more school finance study committees in Illinois is indicative of this trend and the need for re-thinking current finance programs. It is the hope of the Advisory Committee that this publication will contribute to the deliberations of research groups in Illinois as well as other states and ultimately to the development of an equitable workable system of school finance for our State.

This document is published as an occasional paper of the State Superintendent's Advisory Committee on School Finance. The purpose of this series of papers is to stimulate public discussion concerning problems of financing public schools in Illinois. Matters of fact and opinion expressed herein are therefore solely the responsibility of the author or authors and do not necessarily constitute the views of either other members of the Advisory Committee or of the Office of the Superintendent of Public Instruction.

Members of the Advisory Committee:

Dr. G. Alan Hickrod, Chairman
Professor of Educational Administration
Illinois State University

Mr. Charles O. Austin
Superintendent
Rock Island Public Schools

Dr. Fred Bradshaw
Director, Finance and Statistics
Office of the Superintendent of Public Instruction

Dr. Robert A. Burnham
Assistant Professor of Educational Administration and Supervision
University of Illinois

Dr. Leo Cohen
Professor of Economics
Southern Illinois University at Edwardsville

Mr. William Cote
Director of Research
Illinois Education Association

Dr. A. James Heins
Professor of Economics
University of Illinois

Dr. Charles Hempstead
Assistant Superintendent, Research, Planning, and Development
Office of the Superintendent of Public Instruction

Dr. Ben C. Hubbard
Professor of Educational Administration
Illinois State University

Dr. Raymond L. Lows
Assistant Professor of Educational Administration
Southern Illinois University at Edwardsville

Dr. William P. McLure
Professor of Educational Administration
University of Illinois

Dr. Nicholas Michas
Associate Professor of Economics
Loyola University

Mr. Leslie E. Purdy
Superintendent
East Richland Community Unit School District No. 1

Dr. Robert N. Schoeplein
Associate Professor of Economics
University of Illinois

Dr. Donald V. Strong
Superintendent
Arlington Heights Public Schools

Dr. J. Allen Thomas
Dean, Graduate School of Education
University of Chicago

Dr. Franklin Van Buer
Assistant to the Provost
Northern Illinois University

Dr. Arthur Wise
Associate Dean, Graduate School of Education
University of Chicago

EQUALIZING EDUCATIONAL OPPORTUNITY BY MEANS OF A RESOURCE EQUALIZER OR GUARANTEED VALUATION GRANT-IN-AID

by

Ben C. Hubbard and G. Alan Hickrod

As the current national debate over financing K-12 education continues, it appears that four general strategies for achieving greater equality of educational opportunity can be distinguished. These major strategies are in no way "new" to the study of school finance as Hickrod has demonstrated in an earlier paper for this committee. In fact, some of these ideas have been discussed for over half a century. What is new is the demand on the part of certain groups, often expressed now through judicial processes that the educational establishment and the legislature move from a knowledge of these strategies to the development and implementation of specific tactics for accomplishing the desired goal.

This paper hopes to contribute to the discussion of specific tactics in the following manner. After briefly outlining the four major strategies, we shall select one of these approaches and argue that it is perhaps being undervalued relative to the other alternatives in the current national debate. We shall then describe the tactics necessary to accomplish this general strategy. In this case the tactics will take the form of the details of a specific kind of grant-in-aid system. It should be noted at the outset that these tactics are not the *only* way to implement the general strategy selected. Furthermore, like all fiscal arrangements for education, the allocation system discussed herein has weaknesses as well as strengths. We shall endeavor to point out both.

Four Major Strategies

The four major approaches can be designated as: "full state funding," "reform of joint state-local funding," "family educational allowance or voucher system," and "redistricting to achieve heterogeneous student population and more equal resources". The "full state funding" alternative has the advantage over the other major strategies of having been endorsed by at least five recent state and national school finance studies (ACIR, 1969, 1971; Milliken, 1969; Wise, 1971; Benson, 1971; Benson and Guthrie, 1972; PCSF, 1972). Definitions of "full state funding" vary but this approach usually calls for the distribution of funds on the basis of rather large bloc grants per weighted pupil, where these weights are established on the basis of differential costs for certain special educational needs. The local district is allowed to add on only a small amount of funds from local resources (ACIR, 1969; PCSF, 1972) and in some cases, it has been suggested that no local add-ons be permitted at all (Benson and Guthrie, 1972). Frequently a statewide property tax is substituted for the local property tax as a part of this full state funding model.

As Henry Morrison clearly saw over four decades ago (1930), the 100% state support model is the most direct route to equalizing educational opportunities and probably to equalizing tax burden as well. Given the impressive support this strategy now has at the national level, we have no intention of lightly dismissing this alternative as a possible means of achieving equal educational opportunity in Illinois. However, we feel we would be in error not to subject this alternative to intensive and searching criticism. At this juncture, however, we shall pose only a few questions since the major responsibility of this paper is to explore avenues other than full state funding.

First we note that full state funding will put the entire matter of determining the level of school spending in the hands of the state legislature. That body will have to determine the level of the bloc grant in basically the same fashion as they now, at least in many states, determine the level of the "foundation" program. The record of state legislatures in providing an adequate foundation level is not such as to give us great assurance that the level of the new bloc grant will be any more adequate to achieve a quality education for all children than are the present foundation levels.

In the second place, it appears to us that the extent of assistance to students in the poorer school districts is primarily a function of the kinds of weightings attached to the bloc grant. If these weightings are poverty correlates, such as weightings for concentrations of students on aid for dependent children, or concentrations of low achieving students, as

advocated by the Fleischmann Report, then considerable equalizing of educational opportunity might well occur. However, many states have tried already to attach these poverty weightings to their present grant-in-aid systems with only partial success. What assurance do we have that the new bloc grants would fare any better at the hands of the various state legislatures?

Thirdly, many of the full state funding schemes we have investigated appear to call for a freeze on spending levels in the wealthier districts while the state goes about the task of "leveling up" the poorer districts. For states with wide disparities in expenditure this might be quite a lengthy freeze, indeed, and we suggest that education in the state as a whole might suffer in the process. We repeat, however, that we are not rejecting out of hand the full state funding approach at this point; rather, we are merely suggesting that the current national popularity of this approach should not be allowed to cut off debate on other strategies.

We feel there are also serious questions that can be raised of the other two strategies, i.e., "voucher systems" and redistricting." There has been so much written recently concerning voucher systems that we feel both educators and legislators are aware of the reservations that can be attached to this approach without further documentation and discussion here. We would only stress that the *Serrano* holding to the effect that, "quality of education must not be a function of wealth other than the wealth of the state," makes the voucher system even more difficult to operationalize than it was before that ruling.

The "redistricting" strategy, we must admit, could indeed be a very powerful weapon in the hands of a court bent upon bringing about a strong remedy for *Serrano*-type plaintiffs. The court might well have more influence over the drawing of district lines than over the approval of allocation and revenue systems put forward by a reluctant legislature. However, unless one is prepared to change the law to make possible discontinuous districts, and to tolerate badly gerrymandered districts, not to mention having to change the district lines as populations shift, there will be some logical limits to this "redistricting for the purpose of equalization" approach. Again, we are not necessarily rejecting such a district reorganizational approach to equalization in Illinois, but merely pointing out some limitations. Just making districts large enough to assure economic school operation would solve much of the disparity problem and make any system used more workable.

This brings us to the now heavily criticized reform of the state-local funding arrangements, usually characterized by the existence of an "equalization" formula. Inspection of the current criticism of traditional equalization approaches suggests, however, that it may not be so much the approach itself that is being castigated, but rather the frustration of the reform strategy by antiequalization forces entrenched in state legislative bodies. Professor Coons puts the matter well when he writes, "...there has been a consistent history of successful emasculation of these theories, of last minute legislative modification of inexplicable compromise by the theorists themselves that has very nearly destroyed the effectiveness of the recommended reforms." (Coons, Clune, and Sugarman, 1970.) The two most commonly advanced criticisms are (a) the formulae are manipulated in such a fashion that the proportion of state aid going to the poorer districts as opposed to the wealthier districts is greatly weakened; and (b) that the proportion of state aid is so low relative to the proportion of locally raised revenues that the allocation pattern really doesn't make that much difference anyway. But it should be pointed out that formulae *can* be engineered so that they will provide a good deal of money from state sources and so that these funds will find their way to the poorer school districts. Hickrod's previous paper for this committee suggests several techniques for engineering formulae so that they will provide more funds for poorer districts. The criticisms are thus not so much of the strategy itself, but of who uses this strategy and for what purpose.

One of the major recommendations of the final report of the President's Commission on School Finance (1972) would have a direct effect on state allocation formulae if carried out. This recommendation deals with "incentive aid" for states that desire to reach 100% state support. Four alternatives are provided but the effect of all four would be to provide more funds to those states that increased the percentage of state aid relative to local resources. This highlights a matter that is sometimes overlooked. There is no reason why the reform of state-local allocation systems cannot, gradually, lead to a situation in which the state becomes the primary partner in the joint state-local funding arrangement. It should be possible to draft legislation so that the state takes over an increasing percentage of the costs of K-12 education up to whatever parameter, for example, 75 or 80% state support, is desired. This policy of "gradualism" may, at least in the opinion of the authors, be the only politically feasible route in many states that have groups strongly opposed to both state absorption of educational costs and even to the notion of equalization itself.

We conclude from this brief look at general strategies that an investment of committee time in creating and adjusting various types of grant-in-aid formulae is probably as profitable and may be more politically realistic than investment of time in the other strategies. Accordingly, the balance of this paper is devoted to a particular kind of grant-in-aid formula known as a "resource equalizer" or "guaranteed valuation" approach.

The Wisconsin and New Jersey Experience:

Our review of the literature has revealed only two states that have had much experience with a "resource equalizer" grant, e.g., Wisconsin and New Jersey. The state aid system in Utah has some features in common with this type of grant but the Utah formula appears to us to be more of a special adaptation of the Strayer-Haig or "foundation" approach than a resource equalizer notion. Wisconsin has had the longest experience with this type of allocation system, having adopted it in 1947 (James, 1959). In its twenty-five years of existence in Wisconsin, there have been many additions and deletions to the basic formula but during a good many years of this period general aid was distributed by the following formula:

$$G = \frac{E}{V_g} [V_g - V_i]$$

where: E = Current expenditure per pupil in ADM net of special purpose state and federal grants.

V_g = A guaranteed valuation per pupil (for K-12 districts in Wisconsin this was \$39,000 in 1969).

V_i = The equalized assessed valuation per pupil in ADM in the district.

The factor (E/V_g) is termed the "required" e.g., the district receives either the flat or the equalization grant but not both. A ceiling of 17 mills is placed on the "required" tax rate. Throughout most of its quarter century history, the allocation system seems to have been rather well received in Wisconsin (Benson, 1964). It is of course apparent that if the guaranteed valuation is placed too low and if a low ceiling is also placed on the tax rate, this formula can suffer the same fate that Professor Coons had described for all other formulae, e.g., a watering down of its equalization effect.

In 1970, the New Jersey Legislature adopted the recommendations of a school finance study commission chaired by Raymond H. Bateman, President of the New Jersey Senate. The equalization formula contained in the Bateman Act is basically similar to the Wisconsin approach with one important exception. A weighting of 1.75 was introduced for each child age 5-17 in families which receive assistance under a program of aid to families with dependent children. A weighting for Title I eligibles has been proposed in Illinois by the State Superintendent's Office for the present Strayer-Haig formula but had not received the approval of the Legislature at the time this paper went to press.

On January 19, 1972, the Superior Court of New Jersey in **Robinson v. Cahill** declared the flat grant and the save-harmless provisions of the New Jersey School Code to be in violation of both the State and Federal Constitutions. However, we feel that it is significant that the court in this **Serrano**-type action did *not* invalidate the newly passed equalization provision. Quite to the contrary, the court directed that funds freed by the invalidation of the flat grant and the save-harmless provisions should be used to raise the "guaranteed valuation" portion of the new formula. It would be stretching a point to say that **Robinson v. Cahill** established the resource equalizer as an "acceptable" allocation system under the **Serrano** rule. However, the case does provide one of the few instances in which a court has passed favorably on at least a portion of the state educational financial structure. It, therefore, seems useful to see if such an allocation system could be applied to the Illinois situation.

The Resource Equalizer as it Might Work in Illinois

In adapting the resource equalizer to Illinois, we have made some changes from the mode of operation in Wisconsin and New Jersey. The most important of which is the substitution of the actual tax rate for the so-called "required" or "computed" tax rate. We have also added a weighting for ADC students but it operates in a different manner from that in New Jersey. The formula we are suggesting can be expressed algebraically as follows:

$$G = rP_w [V_g - V_i]$$

where r = Local tax rate for all purposes except bond and interest and capital. A maximum value of \$3.00 is recommended for unit districts.

P_w = The number of pupils in average daily membership with differential cost weightings for ADC students plus the existing weightings for high school and kindergarten enrollments.

V_g = The guaranteed valuation per pupil. It is recommended that this be set at \$42,000 in unit districts in the first year of enactment and progressively raised each year thereafter.

V_i = Local valuations per pupil.

There are three constants in the formula that need explanation: the guaranteed valuation, the tax rate, and the weightings attached to the pupil enrollments. In the dual district situation we have in Illinois, it will be necessary to work out these constants for both high school districts and elementary districts. However, in order to keep the exposition as simple as possible, we have restricted our discussion to unit districts.

We begin with the guaranteed valuation. This is the most important constant in the formula. It performs a function not unlike the foundation level in the Strayer-Haig allocation system now used in Illinois. The higher this guaranteed valuation is set the more funds are directed to the poorer districts of the state and the greater the percentage of state funds relative to local funds. To meet the twin complaints of *Serrano*, i.e., that quality of educational services received should not be a function of local wealth, and further that taxpayers should not be charged unequal taxes for the same level of goods and services received, it would be best if the guaranteed valuation established were equal to the highest valuation in the state. Using 1968 assessments for unit districts, this was \$103,724 per pupil in ADA. Unfortunately, utilization of that constant makes the formula so costly that it would not likely be adopted. Inspection of the 1968 valuation data reveals that only 6% of all students educated in the 391 unit districts of the state are found in districts exceeding \$42,000. It, therefore, seems feasible to use this as the level for the first year of operation. **The legislation should provide that this level be automatically escalated each year**, in effect, moving slowly toward the \$103,724 though it would probably never equal that figure. As mentioned earlier in the paper, this will not only be desirable but almost compulsory if President Nixon's Advisory Commission's recommendation on an "incentive" type of federal aid becomes law. The escalation feature will take considerable study and we have not attempted to suggest a method in this paper.

The second important constant in the formula is the tax rate. Here we reluctantly recommend that there be **no local leeway other than that contained in the formula itself**. This means that no unit district in Illinois can tax itself more than \$3.00 per \$100 valuation even if the citizens of that special district government wish to assume a greater burden for education. This, of course, does curtail some local decision-making concerning the level of expenditure to be provided in each district and, in aggregate, for the state as a whole. We believe it is essential, however, to try to provide some local tax relief while also meeting the equity demands of the *Serrano*-type. Specifically, this provision will lower tax rates in forty-one unit districts in the poorer half of the wealth distribution in Illinois. It will also cause a lowering of tax rates in four wealthy districts. The poorer districts will not lose total revenues since their increased state aid will more than offset their loss of local revenue. For the wealthier districts, however, it would reduce the total revenues available. For that reason it will probably be necessary to adopt a save-harmless provision that will put these districts on a "standstill" basis for the next few years. We anticipate that this will be as unpopular as a similar recommendation made by the Fleischmann Commission in New York. However, we would hasten to point out that our proposal contains far less of this expenditure freeze for certain wealthy districts than does the type of freeze recommended in New York.

There are two other reasons for recommending a maximum tax rate. It is alleged (Benson, 1971) that wealthy districts can take advantage of a formula such as this more than can poor districts. The argument runs that it may be easier for a taxpayer in a wealthy district to put up say 80 cents from local sources in order to receive 20 cents from the state than it is for a citizen from a poor district to put up 20 cents in order to receive 80 cents from the state. It is not easy to prove or disprove such speculations about marginal utility for different types of consumers. We acknowledge some face validity to the argument, however. It is quite possible, for example, in Illinois that shortly after the adoption of such a formula many districts in the wealthier half of the distribution will move closer to the \$3.00 ceiling. This stimulation of local revenue yields for wealthier districts could proceed no further, however, than the \$3.00 limit.

Just as the guaranteed valuation is the constant that controls the amount of state contribution, the tax rate controls the local contribution. We, therefore, recommend that **once this rate is set it not be changed for quite some period of time**. By automatically escalating the guaranteed valuation and holding the tax rate constant, the formula will gradually increase the percentage of state funding relative to local funding and also deliver more funds into the poorer districts. Both effects are desirable from the point of view of the arguments presented in the **Serrano-type cases (Serrano v. Priest, Van Dusartz v. Hatfield, Rodriquez v. San Antonio School Board)**.

With regard to the matter of weighted pupils, we find ourselves in strong agreement with Professor McLure that weightings should be introduced representing the differential costs of programs meeting different educational needs of children (McLure and Pense, 1970). It would be useful to introduce several of these weightings; however, in our view, there is some urgency in introducing a weighting for compensatory education. We, therefore, propose that Illinois follow the lead of New Jersey and introduce a differential cost weighting for compensatory education before other cost differentials are introduced. We also find ourselves in agreement with the President's Commission on School Finance that need is not measured solely by the incidence of needy student populations but also by the concentration of these populations in particular districts. This notion of a concentration ratio has been advanced by Tom Jones (1972). Applying the idea to the Illinois situation, we suggest that weighted students might be computed as follows:

$$P_w = P_i + W_i \left[\frac{W_s}{P_s} \right] \quad .375$$

where: W = The number of children (5-17) receiving aid for families with dependent children (ADC)

P = The average daily membership of the district weighted as presently for high school students (1.25) and kindergarten students (.50).

i, s = The subscripts (i) and (s) denote district (i) and state (s) values.

The cost differential weightings recommended by McLure and Pense for city school districts maintaining compensatory programs are 1.805 for grades 1-6, 2.940 for grades 7-9, and 1.718 for grades 10-12. If the concentration ratio is used, however, some lower cost differential will be needed since cities have a much higher concentration of compensatory students than does the state at large. For purely illustrative purposes we have selected half of the New Jersey weighting of 1.75. We recommend, however, considerable experimentation with both the cost differential itself and the concentration ratio multiplier before final legislative adoption. In no case should the weighting exceed 2.00.

Strengths and Weaknesses:

The proposed formula is essentially a variable revenue matching system and might, at least in the short run, tend to increase local property taxes in some of the wealthier districts that are not at the \$3.00 limit. However, we feel this increase would be modest and in the long run we have tried to offset this with the maximum tax rate feature. Another weakness concerns the number of constants needed to operate the formula. The legislature needs to set both the guaranteed valuations and the maximum tax rates not to mention making decisions on the pupil weightings. Experience indicates that formulae with many constants are more open to the type of manipulation that Professor Coons so correctly condemns (Coons, 1970). The system also still depends, at least partially, upon local wealth and in **Serrano** terms this must be counted a weakness.

On a broader plain, educational opportunities would not be helped in those districts which did not see the utility of taxing themselves at least up to the \$3.00 limit. As Benson (1971) has pointed out, unequal treatment of the law due to **place** of residence may be just as unconstitutional as unequal treatment due to wealth. Of course, should this **place** inequality argument be accepted then all proposals of a joint state-local nature would fall, including the one offered here. Professor Benson astutely inquires of us concerning two districts of **equal** wealth: "... suppose the residents of District A chose a school program half as costly as the residents of District B. Is it good policy for the state to require the children of A to suffer the lifetime handicap of inferior education, which is to say that the state excludes these children from the benefits of District B education on the basis of a district boundary line that is itself a historical accident?" (Benson, 1971). We have no suitable reply, nor does anyone else who is still trying to preserve some amount of local decision-making over levels of educational expenditure.

What then can be said in favor of the proposal? First, although the system does not completely meet the fiscal neutrality rule in **Serrano**, we believe it would be found acceptable and rely upon **Robinson v. Cahill** for precedent. Secondly, if adopted with the compensatory weightings we have suggested, particularly the concentration ratio, it will provide a good deal of funds for depressed urban areas. Thirdly, if the guaranteed valuation is automatically escalated and the tax rate frozen in place, the effect will be to gradually move the state into a senior partnership position relative to the funding of K-12 education. In the process, additional funds will be provided for the poorer school districts. Finally, it must be admitted that we are guilty of again accepting "half a loaf" in the manner described by Coons (1970). Illinois is, however, a relatively conservative state, and if local expenditure decision-making is to be abandoned, we suspect this must take place gradually over a reasonable period of time. To put the matter differently, we believe that equalization formulae do offer the possibility of moving with "all deliberate speed" toward equal educational opportunity. We do not deny that full state funding would move us much faster toward that goal, but we suspect it would take considerable judicial intervention to bring full state funding about in Illinois.

In our view the best way to avoid extensive litigation and possibly even a debilitating clash between the legislative and judicial branches of government is to adopt an equalization formula that directs a strong flow of funds to the poorer districts and also systematically increases the percentage of state funds provided relative to local funds. We believe the allocation system described herein has such a potential. There are other allocation systems that can also accomplish these goals and doubtless the committee will wish to investigate these other alternatives. One such alternative is a "percentage equalization" formula, recommended by the authors a few years ago for consideration by the School Problems Commission (Hubbard and Hickrod, 1969). At a later point we may wish to bring that procedure to the attention of the committee.

REFERENCES

Advisory Commission on Intergovernmental Relations. **Who Should Pay For Public Schools?** Washington, D.C., The Commission, 1971.

Advisory Commission on Intergovernmental Relations. **State Aid To Local Government.** Washington, D.C., The Commission, 1969.

Benson, C.S., and J.W. Guthrie. **Report of The New York Study Commission on the Quality, Cost, and Financing of Elementary and Secondary Education.** Albany, N.Y., State Department of Education, 1972.

Benson, C.S. State Assumption of Educational Costs. **Proceedings of The Sixty-Fourth Annual Conference on Taxation.** National Tax Association, 1971.

Benson, C.S. State Aid Patterns. In Burkhead, J. **Public School Finance: Economics and Politics.** Syracuse, N.Y., Syracuse University Press, 1964.

Coons, J.E., W.H. Clune, and S.D. Sugarman. **Private Wealth and Public Education.** Cambridge, Mass., Harvard University Press, 1970.

Hubbard, B.C., and G.A. Hickrod. Alternatives in Educational Expenditure Policy For Illinois. In **Report of the School Problems Commission, No. 10,** Springfield, Ill., The Commission, 1969.

James, H.T. Analysis of Wisconsin's School Support Program. In Benson, C.S. (ed.) **Perspectives on the Economics of Education.** Boston, Mass., Houghton Mifflin, 1963.

Jones, T. Revising Title I of the Elementary and Secondary Education Act. To appear in **Planning and Changing,** 1972.

McLure, W.P., and A.M. Pense. **Early Childhood and Basic Elementary and Secondary Education.** Urbana, Ill., University of Illinois, Bureau of Educational Research, 1970.

Milliken, W.G. **Report of the Governor's Commission on Educational Reform.** Lansing, Mich., Governor's Office, 1969.

Morrison, H.C. **School Revenue.** Chicago, Ill., University of Chicago Press, 1930.

Presidential Commission on School Finance, **Schools, People and Money: The Need For Educational Reform.** Washington, D.C. The Commission, 1972.

Wise, A.E., School Finance Equalization Lawsuits: A Model Legislative Response. **Yale Review of Law and Social Action,** November, 1971.

CASES

Robinson v. Cahill, Superior Court of New Jersey, Hudson County, 1972.

Rodriquez v. San Antonio Independent School District, F. Supp. (W.D. Texas, 1971).

Serrano v. Priest, 5 Cal. (3d) 584 (2d) (S. Ct. Cal., 1971).

Van Dusartz v. Hatfield, F. Supp. (D. Minn., 1971).

**THE IMPACT OF CHANGING SCHOOL
FINANCE ON METROPOLITAN AREAS**

Robert N. Schoeplein

Associate Professor of Economics
Institute of Government and Public Affairs
University of Illinois

with assistance by

Hugh T. Connelly
Research Assistant
Institute of Government and Public Affairs
University of Illinois

March 20, 1972

THE IMPACT OF CHANGING SCHOOL FINANCE ON METROPOLITAN AREAS

Metropolitan areas such as Chicago are changing dramatically in short periods of time. While total Illinois population increased 10.2 percent between 1960 and 1970, the twelve urbanized areas expanded 17.2 percent. Today 83.0 percent of the total state population is "urban," and 62.8 percent of the total state population reside in the six-county Chicago Standard Metropolitan Statistical Area (SMSA). We also appreciate the exodus and migration to the suburbs: Illinois central cities during 1960-70 grew by 1.0 percent, while the urban fringe within the urbanized areas expanded by 44.9 percent. The 1970 Census also confirmed that inside Illinois central cities the 1970 total number of whites declined 13.2 percent from 1960, while the total number of blacks increased 36.9 percent.

Demographers distinguish between "migration" and "movement." Migration occurs when individuals or households move from one regional labor market to another. The 2.9 percent decline in 1960-70 Illinois rural population coupled with the 17.2 percent increase in urbanized areas reflects one facet of "migration." "Movement" is households changing residences within a regional labor market, such as an urbanized area. The dynamics of change in a metropolitan area, then, encompass both migration and intra-urban movement.

This paper tends to stress movement; that is, households changing residences among neighborhoods, communities, and school districts all within a specified metropolitan area. Our ultimate objective is to investigate the possible impact of changed rates and patterns of household relocation on local school district needs. There are several steps to this analysis, however. The first step is to appreciate the magnitude and dynamic nature of changes in the Chicago SMSA. The mass movement of families to the suburbs reflects a generally predictable, if not always rational, pattern of household behavior.

SECTION 1. MAGNITUDES AND VARYING RATES OF CHANGE IN THE CHICAGO STANDARD METROPOLITAN STATISTICAL AREA.

The dynamics of metropolitan development (and the implications for public school policy) may be appreciated if one examines statistics of the Chicago SMSA over ten years, 1960-70. The 1970 Census records a population of 6,978,947 for the six counties comprising the Chicago SMSA.¹ This is a 12.2 percent increase over 1960 (vis-a-vis a state increase of 10.2 percent). The City of Chicago itself realized a net loss of 5.2 percent, while the balance of the SMSA increased by 35.3 percent.

These population shifts can be illustrated by new city incorporations, rates of residential construction, land conversion, new school construction, and other statistics. Of the forty-one incorporations in Illinois since 1960, twenty-six new municipalities have been chartered in the Chicago SMSA. An additional 330,000 households moved to the metropolitan area outside Chicago, 1960-70. Over 91,000 new single-family dwellings were constructed in the SMSA outside the central city between 1966 and 1970, an average of 18,000 new homes annually. In addition, 87,000 new multiple-dwelling units were constructed in this area 1966-70.²

Clearly such household relocation and residential construction includes a demand for local educational services (varying among communities by the age composition of the population). Comparable statistics on changes in educational facilities and other resources do not appear to be available for this SMSA during the same period. Some sketchy data are available that tend to confirm the expansion in education resources in response to relocated households. Total public school teachers in the Chicago SMSA outside the core city increased from 20,826 to 32,200 during 1960-66, or

¹The Chicago Standard Metropolitan Statistical Area consists of McHenry, Lake, Kane, DuPage, Cook, and Will Counties.

²Annual statistics on new residential (single-and multiple-unit) construction for SMSA areas are first recorded by the Department of Commerce in 1966. Home financing and guarantees were somewhat restrictive during this 5-year period.

54.6 percent during this six-year period. Of the 116 new schools constructed in Illinois during calendar 1966, sixty schools were built in the Chicago SMSA outside the core city (though we have no basis to evaluate whether this one year reflects school construction patterns throughout the Sixties).

Demographers note a significant decline in the birth rates among various age groups of women over the past five years. Though the "baby boom" may have subsided, the mass intra-urban movement of households continues. This specific paper does not attempt to analyze the present rates and patterns of residential relocation in the Chicago SMSA. Rather, we would simply note that even if the statewide population of school-age children was to stabilize, the continued moving of households into suburban areas at the rate of 30,000 families annually or greater will affect the allocation of public education resources.

The Advisory Committee is considering proposals to change the mode of school finance in Illinois. Several proposals may be considered, each affecting local taxes and local school spending within respective school districts. The changes will not be uniform among school districts in a metropolitan area. Therefore, changes in school finance not only may affect the *rates* and *characteristics* of households moving to the suburbs but also may affect *patterns* of residential expansion within a metropolitan area. One frequently ignored observation is that there is significant variation in population growth rates among suburban communities. Growth rates for some communities are irregular; other municipalities literally "explode" in a 3-5-year period (see Appendix C). Patterns of residential location may be altered by the "uneven" impact of a new school finance program.

The intra-urban movement of households in the Chicago SMSA is significant, thereby affecting public school policy. The next step is to inquire *how changes* in school finance may affect the rates and patterns of residential relocation. Once we appreciate this process, we can investigate the possible direction and magnitude of change in residential relocation in response to possible new school finance proposals.

SECTION 2. SCHOOL FINANCE, EDUCATION, AND METROPOLITAN CHANGE

There are several basic alternatives to the present mode of 60% reliance on local property taxes to generate school revenues. One "package" may include some form of real property taxation at a state level, which would have some effect through an "equalization" process on the present tax rates of the various communities. A second alternative may be significantly reduced reliance on property taxes generally, to raise school revenues. The school districts might be compensated through some "package" of increased state taxes. A third alternative might be the elimination of property taxes for school finance purposes. Presumably some property taxes would remain to finance other local government services more specifically related to property ownership. In this instance, public schools would be financed wholly by state and federal funds raised by nonproperty taxes.

This list does not exhaust the possible alternatives to the present mode of school finance. It is possible, however, that property tax rates of many (if not all) communities would be affected by a significant change in school finance. The balance of this paper is written on the premise that property taxes for schools initially will be affected, regardless of the new school finance program. One question to be answered by alternative simulation models of different school finance formulae would be the magnitudes of change in school tax rates among the different school districts by each proposal.

We have reviewed population movements and the process of urbanization in the Chicago SMSA during the Sixties. Clearly demographic, economic, and social considerations affect this rate of urban expansion. Property taxes and public school quality are two such specific variables. Would a 25 percent reduction in local property taxes, for example, have an effect on the overall *rates* of multiple-dwelling (rental) construction in the Chicago SMSA?

The patterns of expansion vary among municipalities and communities in a metropolitan area. Cities have different mixes of single and multiple-dwelling units. There are different patterns of low income, moderate income, and high income housing. Commercial construction may cluster among communities. Within the SMSA, then, one can ask whether changes in property taxes and school spending might affect *patterns* of urban development.

If changing property taxes and school expenditures do affect both the *rates* and *patterns* of metropolitan development, then these consequences in turn have public policy implications. How will the changes affect housing, employment, sanitation, transportation? Will land conversion patterns be altered? What are the social and political consequences?

If alternative modes of school finance affect the nature of urban development, then schools and school policy also are affected. Thus, policy decisions to alter education in one fashion may be catalysts to change that affects public

education in other ways, some perhaps alleviating present education problems and some effects perhaps aggravating existing problems.

2.a. Intra-Urban Residential Location in a General Setting.

Researchers from various disciplines (e.g., geography, economics, psychology, engineering, etc.) have studied the dynamics of urban development, with a stress on the determinants of residential location. We can summarize much of the diverse literature by identifying three "levels" of analysis; (1) land utilization within the metropolitan area in a most generalized sense, (2) residential location among journey-to-work rings, and (3) the impact of differential property taxes and school spending among towns exclusive of journey-to-work considerations.

Several individuals have proposed models of residential location within a metropolitan area, also termed "intra-urban location" [2, 9, 19, 24, 33]. The factors affecting choice of residential location necessarily are numerous and frequently interdependent [1]. Economists tend to reduce these numerous factors into three considerations in most general metropolitan analysis: (1) the price of land at some specified distance from the center of the city, (2) the median size of homesites or other density factors, and (3) total commuting costs either to the center of the city or the place of employment. These models tend to analyze land conversion over a short time span, as household income, wealth, and terms for real estate transactions are assumed given. These various models may be simple or relatively complex mathematically, but one joint objective is to specify the range of alternatives facing a household in the decision to relocate within the metropolitan area. If there is some general pattern of land valuation and density (e.g., decreasing from the city center), then households face a tradeoff among land prices, density, and commuting costs in a decision to locate. Changes in land values, for example, will affect rates and patterns of residential location.

Implicit in these analyses of intra-urban locational and residential patterns is some concept of a "market" for housing. There is a stress on income, wealth, and market transactions. Clearly there are significant market imperfections in housing and residential location. Some of these imperfections—zoning, racial discrimination, building restrictions, ethnic preferences, quality of community services—are elements in the determination of the "price" of land. Some studies have abstracted from residential market values to analyze the differential impact of one or another of these variables on property value. The effect of racial integration on property value is one example [15,23].

Economists, demographers, and others during the late sixties tended to concentrate on "journey-to-work" considerations in residential location decisions [6,13]. These studies are empirical and concentrate on cities such as Detroit, St. Louis, Philadelphia, and New York. The various writers may focus on different facets of commuting or work location, but one common basis for reporting results is a series of geographic time or distance "rings" from an employment center.³ Where do property taxes and school spending fit into these two groups or "levels" of analysis? The answer is that discussion of the impact of differential property taxes and differential school spending in residential location generally has been minimal in the more popular literature until the last two years. Two complementary attitudes may explain this "oversight." Some writers of general, abstract models of metropolitan development have assumed that municipal services and tax rates are uniform throughout the urban area [1, 19, 23]. The authors, in recognizing the entirety of the metropolitan area as a housing "market," would seem to ignore the balkanization of this geographic area into hundreds of separate units of government—municipalities, school districts, special districts, and so on. Each unit of government may have separate taxing powers and provide different packages of local government services. These models frequently were applied to transportation problems, so perhaps the levels of abstraction were adequate to provide general data for transportation policy.

There is a second plausible explanation why urbanologists concentrated on land value, density, and commuting costs in models of metropolitan development. These writers write as though they viewed local schools and supporting local property taxes in complementary "benefits received" terms. That is, local schooling may be provided by local government, but citizens elect locally to provide the quality levels of education they prefer on a "one-for-one" basis. If one were to extend this premise, one would specify the hypothesis that there is a strong correlation between local effective tax rates ("local tax effort") and quality education, as measured by spending per pupil. This is invalid, but some economists were "discovering" an inverse correlation between local tax effort and local government spending as late as 1962, and urban analysts began to give this explicit attention just two years ago [1, 21].

John F. Kain is known for recent "journey-to-work" studies of metropolitan residential location. Kain concentrates on analyzing present residential location of workers (static analysis), rather than shifts in residences in response to

³These time "rings" or commuting cost "rings" empirically are not necessarily circular. Commuting time will be shorter for households residing close to an auto or rapid transit travel "arm" extending from the city.

changing conditions.⁴ Given his perspective of the metropolitan area as it "is" at the time of the analysis rather than what it "might be," Kain has this observation on schooling, "A large number of researchers have emphasized the role of good schools and public services, and the supply of new and high-quality dwelling units, in determining residential location.

"It is an empirical fact that the mean quality level of the housing stock, and most likely of government services, increases with distance from the central business district. My intuition, based partially on the findings presented here and those of related research, are that an explanation of residential location in these terms is at best an oversimplification and at worst may be basically incorrect. It is my belief that housing quality is less of a determinant of residential choices than are collective residential choices a determinant of the quality of housing services and of the quality of governmental services." [23; p. 223]

Kain may be correct both in the absolute (total community wealth base) and average (effective tax rate) senses that wealthy households collectively can and generally do demand quality government services. But Kain and other "journey-to-work" authors generally ignore two relevant considerations. First, all land prices, or property values/standardized-homesite, are *not* relatively uniform within a time "ring" or a distance "ring" from an employment center. The very balkanization of these rings into numerous governmental units provides independent bases for zoning, building restrictions, community amenities and other considerations that significantly affect property valuation. In short, there are "wealthy" communities and "poor" communities within the same commuting rings. Therefore, Kain's operating premise that "the surface of location rents tends to decrease with distance from the central business district, and that the rate of decrease was greatest near the center and least near the periphery" is inadequate to incorporate the impact of differential property taxes and differential quality education on rates and patterns of metropolitan development. Kain essentially assumes this question away.

Second, the recent "journey-to-work" literature continues to be static analysis. Kain acknowledges, "The issues evaluated in the paper are still far from settled, however, and will remain so until we are able to take into account more explicitly the dynamics of the housing market both in our models and our empirical work." (23, p. 226)

2.b. The Effects of Changes in Local Property Taxes and Local School Spending on Property Values.

Property value (land prices, land rents) has been one principal location variable in all metropolitan development models. Economists long have recognized that local property taxes in themselves (without regard to government services for the moment) may exert a depressing effect on the value of real property. The net income stream (actual or imputed) is reduced by the amount of annual tax liabilities. This depressing effect is reflected in a lower capitalized market value of real property.

The variation in value of owner-occupied dwellings may be substantial if real property taxes are fully capitalized. An illustration may clarify these differences. If we consider two identical houses in two identical communities, where both dwellings have an expected life of forty years and rent for \$2,000 annually, the difference in the market value of the houses, if one were subject to a 4 percent property tax and the other to a 2 percent tax, would be in excess of \$5,000 [see Appendix A]. That is, the estimated market value of one of the identical houses would be \$25,550 in the lower tax community, and the value of the other identical house would be \$20,350 in the higher tax community. This, of course, is an abstract example; the specific impact of changes in real property tax rates on property values is an empirical question.

Likewise, the provision of local government services adds an imputed income stream to resident households. Some measure of community valuation of these services is their positive impact on property values. That is, individual families desiring to consume higher levels of specific quality local government services presumably would tend to bid up property values in communities with high-quality programs.

We know from data before the *Serrano* decision in California that economic clustering of residential communities into separate enclaves of different wealth status has precluded a one-for-one "benefits received" relationship between local tax effort and quality schooling as measured by spending/pupil. Rather, an inverse correlation between local tax effort and quality has been demonstrated for different select states in recent literature. Koons, et al. analyzed the relationship

⁴Kain initially seeks to explain why different classes of workers prefer to live in their present location. This analysis of course has implications for dynamic household moves, but Kain does not ask what are the determinants of a move and relocation decision for the *marginal* ("additional") family in a set of communities with somewhat established levels of government services.

may be state assumption of a greater portion of school finance so that local rates initially might be reduced, say, by one-half. The combined impact of a one-half reduction in school property taxes and changes in spending/pupil may be significant on relative property valuations, along the magnitudes suggested by the Oates-Princeton research.

The present impact of either a 50 percent reduction (or alternatively an elimination) of local school property taxes on the net "effective" (actual) tax rates is illustrated for twenty suburban cities in Appendix D. These communities were selected at random, weighed only for number of cities in each of the six Chicago SMSA counties. Alternatively, one could illustrate another sample of communities with significant "tax effort," to demonstrate maximum reductions in property tax liabilities. The cities in Appendix D, however, give a representative cross-section for the area: combined local property taxes would be reduced by 35 percent and more if school taxes were cut by half. This also can be expressed as a tax saving of 1 percent or more in the overall effective (not announced) property tax rates - based on full market value.⁵ Reductions in total local property taxes would be twice as significant if the school property taxes were entirely eliminated.

In summary, the impact of changes in local property taxes and school spending on property valuations may affect residential location decisions among the different communities within commuting "rings" in metropolitan areas. One must stress that these capitalized changes in property valuation (land prices, location rents) are a consequence of household response *in the housing market* to changed conditions. The capitalizations do not occur by edict. Household location preferences among communities shift, inflating or depressing property values. This is reflected in changed growth rates among communities. Oates notes that at the time of his article (1969) time-series data were not available to investigate the nature of the actual adjustment process. The adjustment process may be as interesting as the consequent stabilized results.

2.c. The Effects of Changes in School Finance On New Residential Construction.

A shift in reliance on local property taxes to finance public education may affect the overall rate of new residential construction, both in owner-occupied residences and multiple-unit dwellings. Accelerated residential construction may occur throughout the metropolitan area, but the overall impetus may be to accelerate construction in outer "rings," as residence (location rents) costs are reduced (at least initially) relative to commuting costs.

The extent to which the relatively high property tax burden discourages housing consumption relative to other consumption depends in part on the price-elasticity of the demand for housing [20; p. 73]. Recent studies indicate the price-elasticity of housing demand is near unity [25; p. 381]. Households seem unresponsive to price changes with regard to housing space per se, but instead upgrade the quality of housing with changes in price. The most significant type of quality upgrading is the shift from renter-to owner-occupied housing; hence, the probable acceleration of suburban tract housing [20; p. 73].

Real property taxes have a significant and frequently turning impact on investor decisions to construct new multiple-unit dwellings. Current real property taxes represent about 20 percent of gross possible rental income in midwestern metropolitan areas and may range between 20 and 25 percent of declared rental income for the Chicago SMSA [20; pp. 106-108]. Some portion of these taxes may be passed forward to renters in the long run, thereby reflecting 20 percent or so of their outlay for housing. During construction and initial years, however, high property taxes may affect investors as absorbed costs or through the uncertainty of vacancy rates.

A 1964 New York SMSA study illustrates the impact of reduced property taxes on household rent in multiple-unit dwellings. Some private apartment structures are built with a 50 percent tax abatement (50 percent reduction in property tax liabilities). The study concluded that the reduced property taxes alone accounted for a 12 percent decrease in relative monthly rents [20; p. 85].

The complementary factor, of course, is increased spending/pupil in numerous districts in both urban and suburban communities. The most mobile households are families with young children. While 15 percent of all households made major moves during 1960-65, 35 percent of households with head aged 18-24 made one or more moves during this

⁵The State of Illinois "equalizes" the assessed property tax valuations among the various counties to a standardized basis for 50 percent of estimated market value. The published tax rates (e.g. State of Illinois. *Illinois Property Tax Statistics - 1969*) are based on this "50 percent of market value," and must be reduced uniformly by one-half to determine the *effective* property tax rate based on 100 percent market value.

among wealth base, tax effort and quality for school districts in Cook County other than City of Chicago. The findings are reproduced as Appendix B.

Therefore, there is a clear tax-and-government service advantage for a household with a large personal wealth base to consider locating in a community dominated by other wealthy families. This enclave advantage may increase local property values relative to less advantaged communities in the same area ("ring"). A corresponding reduction in this local advantage (through new school finance formulae) may have a depressing effect on property values. These *absolute* community advantages and corresponding effects on property valuation have not been analyzed in the literature.

Recently, however, a group of Princeton economists have analyzed the effect of *marginal* changes in local property taxes and school spending on corresponding property values. The results of some empirical findings are presented in an article by Wallace E. Oates in the *Journal of Political Economy*, Nov/Dec 1969. [22]

To place this research in perspective, Oates does *not* broach the question of the impact of local tax/service advantages on property values among communities. Rather, Oates explains, "We are asking what effect a *change* in tax rates and/or expenditures has on the equilibrium value of residential property." [22, 967] Oates gives this survey description of the Princeton research:

This paper reports the findings of a cross-sectional study of the effects of local property taxes and local expenditure programs on property values. Using the two-stage least-squares estimation technique in an attempt to circumvent the likely presence of some simultaneous-equation bias, the regression equation indicates that local property values bear a significant negative relationship to the effective tax rate and a significant positive correlation with expenditure per pupil in the public schools. The size of the coefficients suggest that, for an increase in property taxes unaccompanied by an increase in the output of local public services, the bulk of the rise in taxes will be capitalized in the form of reduced property values. On the other hand, if a community increases its tax rates and employs the receipts to improve its school system, the coefficients indicate that the increased benefits from the expenditure side of the budget will roughly offset (or perhaps even more than offset) the depressive effect of the higher tax rates on local property values. [22; p. 968]

Specifically, the Oates study evaluated fifty-three New Jersey residential communities in the mid-Sixties. At that time the focus was on the effects from *increases* in local property taxes; no one had foreseen that taxes might be adjusted downward. With regard to school spending, Oates states, "By far the largest single item in local public budgets (and no doubt the most important to families with children) is primary and secondary education. Again no direct measure of output is available, but comprehensive data on inputs, more precisely on costs, are published annually. I have, as a result, used expenditure per pupil as a proxy variable for the level of output of educational services." [22; p. 962]

The Oates data indicate that, for the fifty-three New Jersey communities, an increase (i.e., change) in local property tax rates from 2 percent to 3 percent will reduce the market value of a house by about \$1,500, with community services held constant. That is, empirically about two-thirds of property tax increases were being capitalized in the form of depressed property values.

Oates assumed that roughly one-half of the property tax increases went to support public school budgets, which on the average would permit an increase in spending/pupil of \$100 per annum (\$350/pupil to \$450/pupil). This increase in spending/pupil pushed up house values by roughly \$1,200. Oates concluded that in the New Jersey experience one-half of a budget increase going to the school system almost in itself offsets the depressive effects of the higher taxes on home values. Oates did not estimate the further allowance for presumed positive impact of other simultaneously-improved local government services on property values.

Oates structured his statistical analysis to identify separately the impact of changes in property taxes on property values and changes in school spending/pupil on property values. In the New Jersey experience the positive effect of increased school spending roughly offset the negative effect of increased taxes. This cancellation therefore would reflect the consequences from the familiar process of simultaneously increasing local taxes and school budgets.

The *Serrano* decision and consequent considerations of alternative school financing may provide the first basis to appreciate a simultaneous *decrease* in property taxes and *increase* in spending/pupil for some school districts in metropolitan areas. We now appreciate that some "poor" school districts in the highest quartile of effective tax rates for education also are in the lowest quartile for combined (all sources) spending/pupil. One possible policy alternative

period [16; p. 41]. In the age 25-34 bracket, 28 percent of families made one or more moves during this 5-year period. Mobility within urban areas is even greater. Certainly the prospect of better schooling is one factor in residential location decisions for additional families moving into a school district. This household appreciation of improved education is reflected in part by increased demand for residential location, the consequent increased property values in the Oates study.

Concern to move to school districts with upgraded education seems strongest among the lower-middle and middle income families with children. One survey asked households with children, "Did you move because you wanted better schools for your children?" [34, p. 160] Among middle income "high school graduate" administrative or clerical employees, 43 percent responded affirmatively. Twenty-eight percent of a moderate income class of semiskilled employees responded that improved education was a significant consideration in their choice of particular neighborhood or community. Among the highest income families, the relocation typically was from an excellent school district to a community with another excellent school system. In a sense, then, these highest income households could not improve their position. Among lowest income households, considerations other than quality schooling—employment, commuting convenience, rent—take precedence. Incidental to the move, low income households with children were more often previously located in areas with poorer schools and as a result had no way to go but to improve their position or at least stay the same [34; p. 164].

2.d. Conclusion; School Finance, Education and Metropolitan Change.

"Could changes in real property taxes and in public school spending/pupil have significant effects both on the rate and pattern of metropolitan development?"

We have considered here only changes in school finance on *residential* development; specifically, residential mobility, residential location, and new residential construction. Differential property taxes and local schools also have some influence in the decisions for industrial and commercial location, and nonresidential economic activity has some impact on school operations. But the principal concern of this paper is whether changed school finance will affect residential mobility, both the rate of movement and the ultimate location choice.

We have not previously had such a potential change in school finances. There are several alternative sources of funding to displace dominant reliance on local property tax rates for education by fifty percent or more. On the other side of the ledger, the poor school districts may receive additional state support that can be translated into an additional \$100, \$200, or more per pupil.

The results of recent studies that relate household response to effects from changes in property taxes or school spending suggest that significant alternative school finance proposals indeed can affect rates and patterns of household mobility. In the rate of metropolitan development, some school finance proposals could accelerate construction (land conversion) in suburban areas. The reduced property taxes and corresponding increased state school support may provide a strong impetus for construction of new family units in areas with previous high effective tax rates and "lower-quality" education. Again, the shift in school finances may induce accelerated construction of single-family dwellings in otherwise underdeveloped areas.

Changed finances also may affect the overall rate of new construction in multiple-unit (rental) dwellings. Profit margins and other uncertainties of returns are sensitive to changes in local property tax rates. Again we distinguish between areawide changes in *rates* of construction and movement, and changes in *patterns* of development. Some communities will be benefited significantly greater than others by proposed changes in school finance. The rate of new construction aside, patterns of residential location may be affected within commuting "rings."

All of this changed activity, of course, has a direct bearing on school operations. Educational needs follow households with children. Moreover, details on the characteristics of households moving with the metropolitan area—e.g., income, race, occupation, etc.—will affect other facets of school programs and school finance.

**APPENDICES AND
SPECIFIC REFERENCES**

APPENDIX A

One can illustrate full capitalization of real property tax by a hypothetical example of two identical houses in two identical communities, where both dwellings have an expected life of forty years. Each rent for \$2,000 annually. One house is subject to a 4 percent property tax; the second to a 2 percent tax.

For property of a finite life, in this case forty years, we have:

$$V = \sum_{t=1}^{40} \frac{Y_n}{(1+r)^t} = \sum_{t=1}^{40} \frac{(Y - tV)}{(1+r)^t}$$

where V = market value of the property, Y = gross annual rental income, Y_n = net (after tax) rental income, r = rate of discount. Solving for V , we get:

$$V = \frac{Y \left[\sum_{t=1}^{40} \frac{1}{(1+r)^t} \right]}{1 + t \left[\sum_{t=1}^{40} \frac{1}{(1+r)^t} \right]}$$

Using a rate of discount of 5 percent, the difference cited in the text is calculated from the expression:

$$V = \frac{\$2,000m}{(1 + .02m)} - \frac{\$2,000m}{(1 + .04m)} = \$25,550 - \$20,350 = \$5,200,$$

where:

$$m = \sum_{t=1}^{40} \frac{1}{(1 + .05)^t} = 17.1591.$$

See Wallace E. Oates. "The Effects of Property Taxes and Local Public Values; An Empirical Study of Tax Capitalization and the Tiebout Hypothesis." *Journal of Political Economy*, V. 77 Nov./Dec., 1969.

Table 10

Joint distribution of wealth and offering in Cook County
elementary districts by quartile (Q-1 is highest)

		Q-1	Q-2	Q-3	Q-4	Total
Offering	Q-1	20	8	1	0	29
	Q-2	7	15	7	1	30
	Q-3	3	5	16	6	30
	Q-4	0	2	6	22	30
	Total	30	30	30	29	

Table 11

Cook County, Illinois, elementary districts: matrix of numbers of
districts by wealth and effort (local property tax rate)

		Q-1	Q-2	<u>Wealth</u> Q-3	Q-4	Total
Effort	Q-1	2	12	12	5	31
	Q-2	3	8	9	10	30
	Q-3	7	5	6	11	29
	Q-4	18	5	3	3	29
	Total	30	30	30	29	

Table 12

Cook County, Illinois, elementary districts: matrix of numbers
of districts by offering and effort

		Q-1	Q-2	<u>Offering</u> Q-3	Q-4	Total
Effort	Q-1	8	11	10	2	31
	Q-2	5	6	9	10	30
	Q-3	3	8	6	12	29
	Q-4	13	5	5	6	29
	Total	29	30	30	30	

Consider the relationship from the perspective of wealth in Table 10. Not only do 20 of the 30 wealthiest districts provide offerings in the highest category, but 7 more produce the offerings in the next best quartile; none are among the lowest quartile in offering. At the other end, of the 29 poorest districts, only one provides an offering above average. Next, notice that offering does not show any particularly significant relation to the effort. In Table 12 the best offerings (Q-1 down) are most often the product of the least effort (13 of 29). On the other hand, wealth and effort show a strong inverse relation, as seen in Table 11. The wealthier districts simply tax themselves less than the poorer ones do. From Table 11 it is seen that, of the 30 wealthiest districts, only 2 were in the top quartile in terms of effort but 18 were in the bottom quartile. Similarly, of the 61 below average wealth districts, 36 were above average in effort while 23 were below average.

Putting this relationship of effort and wealth (inverse if anything) together with the one manifested by offering and wealth (strong), the conclusion forcefully appears that it is wealth alone which means good offering, and that even though the poor districts characteristically tax high they are unable to catch up, so great is their relative poverty. It might be noted that the same experiment was run with 1964-65 data and yielded the same conclusions with the same clarity. At that time the relative number of ADA pupils (the "size" of the district) was also evaluated for any impact or correlation that might be revealed, but no important relation to the size of the district was discovered.

What is the magnitude of the problem of inequality for Cook County elementary districts? One index is the range and distribution of offering, effort, and wealth involved. For 1966-67, in terms of wealth, the overall range on an assessed valuation per-pupil basis was from a low of \$8,066 to a high of \$231,203. Even eliminating the one incredibly wealthy district, the next highest was \$101,739 per pupil, which makes it a full 12 times wealthier than the poorest district in the county. At the quartiles, the assessed valuations were: Q-1 equals over \$40,000, Q-2 over \$25,000, Q-3 over \$15,000, Q-4 under \$15,300—so that the district in the 75th percentile (bottom of Q-1) has wealth which is 261 percent of that in the 25th percentile. Herein, of course, is the root of the problem.

Having shown that, if anything, the poor districts tend to make greater effort, the offering range is important because it illustrates in numbers what the tables show only generally: offering remains quite varied, just as it would if there were no state aid and uniform effort. For the Cook County elementary districts in 1966-67, offering ranges from a high of \$1,106 (actually \$1,469 in the one especially rich district) to a low of \$407. This is a disparity of more than two and a half to one. Also consider the more than \$495, and Q-4 less than \$495. Therefore, the district in the 75th percentile has an offering, measured in terms of dollars spent per ADA pupil, 140 percent that of the district at the 25th percentile. In the elementary districts, the Illinois version of the foundation plan cannot and does not effect equality from any angle.

APPENDIX C. GROWTH RATES AND CHARACTERISTICS OF SELECT MUNICIPALITIES IN CHICAGO SMSA
WITH GROWTH RATES OVER 100 PERCENT, 1960-70.

	1970 Population	1960-70 Percent Change	Percent Negro And Other Races
Total State	11,113,976	10.2	13.6
City of Chicago	3,366,957	-5.2	34.4
Addison	24,482	263.2	0.6
Arlington Heights	64,884	132.7	0.5
Country Club Hills	6,920	102.3	0.4
Elk Grove Village	24,516	271.0	0.8
Hickory Hills	13,176	386.7	0.3
Hoffman Estates	22,238	168.1	0.6
Justice	9,473	238.0	0.9
Midlothian	15,939	141.3	1.5
Northbrook	27,297	134.6	0.6
North Chicago	47,275	130.4	18.3
Oak Forest	17,870	379.9	0.2
Palatine	25,904	125.2	0.6
Romeoville	12,674	254.6	0.8
Streamwood	18,176	277.0	0.5
Wood Dale	8,831	187.6	0.3

SOURCE: U. S. Department of Commerce. Bureau of Census. *General Population Characteristics, 1970: Illinois*.
Table 16.

APPENDIX D. IMPACT FROM REDUCTIONS IN SCHOOL PROPERTY TAX RATES ON AGGREGATE MUNICIPAL PROPERTY TAX RATES.
RANDOM SAMPLE OF TWENTY MUNICIPALITIES IN CHICAGO SMSA, 1969

Municipality	Actual Aggregate Tax Rate ¹	Actual Total Combined School Rate	Aggregate, Net of 1/2 School Rate	% Reduction If School Rate Halved	Aggregate If All School Rate Removed	% Reduction If School Rate Eliminated
Bensenville	3.353	2.189	2.259	32.63	1.164	65.29
Blue Island	3.459	2.526	2.196	36.52	.933	73.03
Calumet City	2.959	2.127	1.896	35.93	.832	71.89
DesPlaines	3.445	2.543	2.174	36.90	.902	73.82
Evergreen Park	2.803	2.158	1.724	38.50	.645	76.99
Forest Park	3.070	1.913	2.114	31.15	1.157	62.32
Glencoe	3.850	2.699	2.501	35.04	1.151	70.11
Harvey	3.359	2.304	2.207	34.30	1.055	68.60
Hinsdale	3.298	2.160	2.218	32.75	1.138	65.50
Hoffman Estates	3.899	2.812	2.493	36.07	1.087	72.13
Homewood	3.562	2.730	2.197	38.33	.832	76.65
Lincolnwood	2.501	1.877	1.563	37.51	.624	75.05
Midlothian	3.513	2.594	2.216	36.93	.919	73.85
Niles	3.504	2.665	2.172	38.02	.839	76.04
Oak Park	3.454	2.274	2.317	32.92	1.180	75.84
Park Ridge	3.632	2.552	2.356	35.14	1.080	70.27
Rolling Meadows	3.830	2.695	2.483	35.17	1.135	70.37
St. Charles	2.314	1.809	1.410	39.07	.505	78.18
Waukegan	3.017	1.796	2.119	29.77	1.221	59.53
Worth	3.440	2.535	2.173	36.84	.905	73.70
Averages	3.313	2.348	2.139	37.07	.911	71.46

¹The State of Illinois adjusts (or "equalizes") locally assessed property to a uniform 50 percent of estimated market value. The adjusted effective tax rates then are published, based on this 50 percent valuation. Published tax rates must be reduced by one-half to arrive at the actual ratio of taxes-to-estimated market value.

SOURCE: State of Illinois. Department of Local Government Affairs. *Illinois Property Tax Statistics--1969*. Springfield, 1972. Specifically Table II.

**SPECIFIC REFERENCES ON METROPOLITAN DEVELOPMENT, RESIDENTIAL
LOCATION, PROPERTY TAXES AND SCHOOL SPENDING IN LOCATION DECISIONS.**

1. Alonso, William. "A Theory of the Urban Land Market," **Papers and Proceedings of the Regional Science Association**, 1960.
2. Alonso, William. **Location and Land Use**. Harvard University Press, Cambridge, 1964.
3. Beck, Morris. **Property Taxation and Urban Land Use in Northeastern New Jersey**. Urban Land Institute, Research Monograph 7. Washington: Urban Land Institute, 1963.
4. Beshers, James M. **Population Processes in Social Systems**. The Free Press, New York, 1967.
5. Beyer, Glenn H. **Housing: A Factual Analysis**. New York: The Macmillan Company, 1958.
6. Duncan, Beverly, and Otis Dudley Duncan. "The Measurement of Intra-City Locational and Residential Patterns," **Journal of Regional Science**, V. Fall, 1960.
7. Herbert, John D., and Benjamin H. Stevens. "A Model for the Distribution of Residential Activity in Urban Areas," **Journal of Regional Science**, Vol. 2, no. 2, Fall, 1960.
8. Holland, Daniel M. **The Assessment of Land Value**. Madison: The University of Wisconsin Press, 1970.
9. Hoover, Edgar M., and Raymond Vernon. **Anatomy of a Metropolis**. Cambridge: Harvard University Press, 1959.
10. ———. **Counties and Incorporated Municipalities of Illinois**. State of Illinois, Springfield, March 1971.
11. ———. **Annual Statistical Report**. Office of the Superintendent of Public Instruction, State of Illinois, Springfield, 1960-1968.
12. ———. **Family Mobility in Our Dynamic Society**. Iowa State University Center for Agricultural and Economic Development, Ames, Iowa: Iowa State University Press, 1965.
13. Kain, John F. "The Journey-to-Work as a Determinant of Residential Location," **The Regional Science Association Papers and Proceedings**. Vol. 9, 1962, 137-160.
14. Lansing, John B. **Residential Location and Urban Mobility: The Second Wave of Interviews**. Ann Arbor, Michigan: Survey Research Center, University of Michigan, 1966.
15. Lansing, John B., and Charles W. Clifton. **New Homes and Poor People**. Ann Arbor, Michigan: Survey Research Center, University of Michigan, 1969.
16. Lansing, John B., and Eva Mueller. **The Geographic Mobility of Labor**. Ann Arbor, Michigan: Survey Research Center, University of Michigan, 1967.
17. Lindholm, Richard W., ed. **Property Taxation — USA**. Madison: The University of Wisconsin Press, 1967.
18. Meyerson, Martin,, Barbara Terrett and William Wheaton. **Housing, People, and Cities**. New York: McGraw Hill, 1962.
19. Mills, Edwin S. "An Aggregative Model of Resource Allocation in a Metropolitan Area," **American Economic Review**. V. 57, May 1967, 197-210.

20. Netzer, Dick. **Economics of the Property Tax**. The Brookings Institution, Washington, 1966.
21. Netzer, Dick. "The Property Tax and Alternatives in Urban Development," **The Regional Science Association Papers and Proceedings**. Vol. 9, 1962, 191-200.
22. Oates, Wallace E. "The Effects of Property Taxes and Local Public Spending on Property Values: An Empirical Study of Tax Capitalization and the Tiebout Hypothesis," **Journal of Political Economy**. Vol. 77, No. 6, Nov/Dec, 1969, 957-971.
23. Page, Alfred N., and Warren R. Seyfried. **Urban Analysis: Readings in Housing and Urban Development**. Glenview, Ill.: Scott, Foresman and Company, 1970.
24. Perloff, Harvey S., and Lowdon Wingo, Jr., eds. **Issues in Urban Economics**. Baltimore: Johns Hopkins Press, 1968.
25. Reid, Margaret. **Housing and Income**. Chicago: University of Chicago Press, 1962.
26. Ridker, Ronald G. **Economic Costs of Air Pollution**. New York: Praeger, 1967.
27. Roseman, Curtis C. "Migration as a Spatial and Temporal Process," **Annals of the Association of American Geographers**. Vol. 61, No. 3, September 1971, 589-598.
28. Rossi, Peter H. **Why Families Move**. Glencoe, Ill.: The Free Press, 1955.
29. Tax Institute of America. **The Property Tax: Problems and Potentials**. Princeton: Tax Institute of America, 1967.
30. Tiebout, Charles M. "A Pure Theory of Local Expenditures," **Journal of Political Economy**. Vol. 64, No. 5, October 1956, 416-424.
31. U.S. Department of Commerce. Bureau of Census. **1970 Census: General Population Characteristics, Illinois**. PG(1) - B15, III.
32. U.S. Department of Commerce. Bureau of Census. **Construction Reports**. C40-70-13. Annual, 1966-1970.
33. Wingo, Lowdon, Jr. **Transportation and Urban Land**. Washington, D. C.: Resources for the Future, 1961.
34. Daniel, Robert E. **Local Residential Mobility in Decatur, Illinois**. Masters Thesis, University of Illinois, 1969.

Notes

to

The Superintendent's Advisory Committee

on School Finance

by

William P. McLure

March 24, 1972

34

Comparisons of Three Types of Equalization Formulas

1. "Resource Equalizing"

$$G = rPw (Vg - Vi)$$

$$(1) Vi = \$42,000$$

$$G = .03 \times 1 Pw (42,000 - 42,000)$$

$$G = 0$$

$$\text{Local share} = \$1260$$

$$(2) Vi = \$22,756 (M-1970)$$

$$G = .03 \times 1 Pw (42,000 - 22,756)$$

$$G = \$577$$

$$\text{Local share} = \$683$$

$$(3) Vi = 10,000$$

$$G = .03 \times 1 Pw (42,000 - 10,000)$$

$$G = 960$$

$$\text{Local share} = 300$$

$$G = \text{State grant to district}$$

$$r = \text{Local rate, applicable uniformly to districts for current operating expense}$$

$$Vg = \text{Guaranteed valuation per pupil unit (Pw)} = \$42,000$$

$$Vi = \text{Valuation per pupil unit (Pw) in "i" district}$$

$$Pw = \text{Total number pupil units (Pw) in "i" district}$$

2. "Percentage Equalizing"

$$G = [1.00 - .54 \left(\frac{Vi}{Vs} \right)] 1260$$

$$(1) Vi = 42,000$$

$$G = [1.00 - .54 \left(\frac{42,000}{22,756} \right)] \$1260$$

$$G = 1.00 - 1.85 = 0$$

$$\text{Local share} = \$1260$$

$$(2) Vi = 22,756$$

$$G = [1.00 - .54 \left(\frac{22,756}{22,756} \right)] 1260$$

$$G = .46 \times \$1260 = \$577$$

$$\text{Local share} = \$683$$

$$(3) Vi = 10,000$$

$$G = [1.00 - .54 \left(\frac{10,000}{22,756} \right)] \$1260$$

$$G = [1.00 - .54 (.44)] 1260$$

$$G = .763 \times 1260$$

$$G = \$960$$

$$\text{Local share} = \$300$$

$$Vs = \text{State Ave. valuation per Pw} = \$22,756$$

$$Vi = \text{Average valuation per Pw in district "i"}$$

$$Pw = \text{Weighted pupil unit. State guarantee} = \$1260$$

3. Strayer-Haig (present Illinois)

$$G = \$1260 - r (Vi)$$

$$(1) G = 1260 - .03 (42,000)$$

$$G = 1260 - 1260 = 0$$

$$\text{Local share} = \$1260$$

$$(2) Vi = 22,756$$

$$G = 1260 - .03 (22,756)$$

$$G = 1260 - 683 = \$577$$

$$\text{Local share} = \$683$$

$$(3) Vi = 10,000$$

$$G = 1260 - .03 (10,000)$$

$$G = 1260 - 300 = \$960$$

$$\text{Local share} = \$300$$

$$F = \text{State guaranteed foundation} = \$1260 \text{ per Pw}$$

$$Pw = \text{Weighted pupil unit}$$

II

Comparison of Three Formulas for the Present Illinois Foundation of \$520 per WADA (excluding the 12% increment) (Unit Districts)

1. "Resource Equalizing"

$$G = .0108 \times Pw (\$48,148 - V_i)$$

$$(1) V_i = 48,148$$

$$G = .0108 \times Pw (48,148 - 48,148)$$

$$G = 0$$

$$\text{Local Share} = \$520$$

$$(2) V_i = \$22,756 = \text{State median, 1970}$$

$$G = .0108 \times Pw (48,148 - 22,756)$$

$$G = .0108 \times (25,392) = \$274 = 52.7\%$$

$$\text{Local Share} = \$246 = 47.3\%$$

$$(3) V_i = 10,000$$

$$G = .0108 \times Pw (48,148 - 10,000)$$

$$G = \$412$$

$$\text{Local Share} = \$108$$

\$48,148 = \text{Key district for "resource equalizing" of
\$1.08 tax rate on 1970 valuations}

2. "Percentage Equalizing"

$$G = [1.00 - .473 \left(\frac{V_i}{V_s} \right)] 520$$

$$(1) V_i = \$48,148$$

$$G = [1.00 - .473 \left(\frac{48,148}{22,756} \right)] 520$$

$$G = 0$$

$$\text{Local Share} = \$520$$

$$(2) V_i = 22,756$$

$$G = [1.00 - .473 \left(\frac{22,756}{22,756} \right)] 520$$

$$G = \$274$$

$$\text{Local Share} = \$246$$

$$(3) V_i = \$10,000$$

$$G = [1.00 - .473 \left(\frac{10,000}{22,756} \right)] 520$$

$$G = [1.00 - .21] 520$$

$$G = \$412$$

$$\text{Local Share} = \$108$$

3. Strayer-Haig (present Illinois)

$$(1) V_i = \$48,148$$

$$G = \$520 - .0108 (48,148)$$

$$G = 0$$

$$\text{Local Share} = \$520$$

$$(2) V_i = \$22,756$$

$$G = 520 - .0108 (22,756)$$

$$G = \$274$$

$$\text{Local Share} = \$246$$

$$(3) V_i = \$10,000$$

$$G = 520 - .0108 (10,000)$$

$$G = \$412$$

$$\text{Local Share} = \$108$$

PARTICIPANTS
GROUP DISCUSSION - MARCH MEETING

ADVISORY COMMITTEE MEMBERS:

Alan Hickrod, Chairman
Robert Burnham
Leo Cohen
A. James Heins
Charles Hempstead
William McLure
Nicholas Michas (former member)
Robert Schoeplein
Donald Strong

OTHERS:

Donald Eslick
Associate Superintendent of Governmental Relations
Office of the Superintendent of Public Instruction

Tom Jones
Member,
President's Commission on School Finance

James Howard
Director of Research
Office of the Superintendent of Public Instruction

**GROUP DISCUSSION AT THE MARCH MEETING OF
THE SUPERINTENDENT'S ADVISORY COMMITTEE ON SCHOOL FINANCE**

CHAIRMAN HICKROD - We do not have a great number of contributive papers this session. After the discussion of the papers, we will have reports on individual research projects underway. There is also room on the agenda for discussion of the goals of the Advisory Committee, a timetable, and a number of other items of that nature. And I would like to make a few remarks on the Governor's Commission on Schools, the task force that met on finance the last couple of days in Springfield.

We have made arrangements so that the working papers of that group will be distributed to this group. The Governor's Task Force already has all the working papers submitted for this group. Papers from the Governor's group will be arriving as we arrange the flow of information back and forth. It is certainly the desire of John McCarter and his staff that we articulate as closely as we can the deliberations of the two groups. There are four task forces working on the Governor's Commission on Schools and two of these are concerned with finance, one on a more general state fiscal policy level, such as this group, and the other with some of the business aspects of finance. A definite attempt will be made to articulate the deliberations of both bodies. Mr. Tom Jones is sitting with us today. He is on the Presidential Commission on School Finance, President Nixon's Commission on School Finance, and has been loaned from that Commission to the Governor's Task Force on Finance. He will function partially as a liaison between this body and the task force operating out of the Governor's Office and the Bureau of the Budget. One further remark about the articulation of this committee with the other committee. We have overlapping membership - Professor Cohen, a member of this group, and Don Eslick also sit on that other body. This keeps me apprised of the events in the other body and vice versa. I am very pleased about this relationship.

I think I should make some other remarks on a very touchy subject that is the business of possible partisan political influences. I think it fair to say, as I looked around the Governor's Group yesterday, there were a number of Democratic faces in that group. I have never inquired and I shall never inquire as to the political affiliation of anyone in this group. I don't think that it is either proper or useful. But I know that we have various shades of ideology reflected there. I think that we are well on our way to moving away from the more partisan aspects of politics. I have a feeling that it is impossible to get education out of politics, but perhaps it is possible to get education out of partisan politics. That may not be possible either, but at least they are fairly balanced groups.

Let's turn to discussion of the contributive papers. I regret that my colleague, Professor Hubbard, could not be here to comment on the first paper the "Resource Equalizer." I will comment very briefly. I am sure we will come back to this several times as we go along.

My chief reservation, as I look through this paper now, is that just one of the models could be used for distributing funds. It is a model of a grant-in-aid system. There are also Percentage Equalization Models and modifications of the Strayer-Haig approach. As Professor McLure can articulate at great length there are a great many models for distributing funds from the state to the local school districts. I would hope that we could introduce other models later on. Our power equalization model is that which Professor Coons is advocating around the country. This is embodied in a bill introduced by State Assemblyman Green from California. It is a possibility that I think we ought to explore. We have also simulated the New Jersey formula. By simulating I mean that we have run it off in the computer so that we know how much each Illinois school district would get under the New Jersey formula. That is the so-called Bateman Formula. Minnesota has adopted a formula since the Serrano-type case that would be useful to simulate here and there may be more of that nature. In the opening pages of this paper we commented on the two schools of thought that may be developing across the United States - one advocating a full state funding system, and the other a joint local-state funding system. This is by no means a full discussion of the strengths and weakness of full state funding. There are several of those. Professor Benson, in a speech to the National Tax Commission, recently outlined a very full defense of full state funding. There is a very good article which talks about Professor Rossmiller at the University of Wisconsin

discussing the strengths and weakness of full state funding. We did mention some of the questions on full state funding and I am sure a portion of full state funding will be discussed at length in this committee. Then we went through, briefly, a presentation of the New Jersey experience and we eventually got to the Wisconsin experience and then to how it might work in Illinois. I will just make one more comment and then open up to the floor. In this paper there is a great deal of emphasis upon the local assessed property evaluation and I am just a little afraid that this will give a bonus to underassessment. The way that this formula is set up, if you underassess in your local evaluation, you are receiving a bonus from the state. If you underassess, this raises the local tax rate and you receive another bonus. So in a sense there is a double incentive here for underassessment. I realize that this is true of any equalization formula, but it seems particularly true of this formula. We would have to take a look at the supervision of the assessment practices, if we adopt something like this. I grant you that we have incentive to do so now, but this would make it even more imperative. Of course, so would many other things if you went to statewide tax rates.

HEMPSTEAD - I'm worried about the tax rate provision. That is, the local district which will not raise the tax rate to provide the education.

HICKROD - That is a very good point.

HEMPSTEAD - There is a maximum rate. What about a minimum?

HICKROD - That would be one way of adding to this. You could put on a minimum as well as a maximum. I think that both points are true of other formulas as well as percentage equalization. What happens if you don't tax? What happens if the community doesn't want to purchase that much education? If you want to defend that, you could say that it is an exercise in consumer sovereignty. The locality didn't want it. They didn't buy it. Therefore, they don't receive any state money for not buying it. That's the other side of the coin.

STRONG - But what about surroundings?

HICKROD - Exactly. This leaves you with considerable inequity in this system. Since they didn't tax, they receive nothing from the state. Under percentage equalization - they don't spend - they don't receive from the state. It is a shared cost operation. The more you spend the greater aid you receive from the state.

STRONG - I wonder if I could ponder on your paper by raising a question. The thing that I find most difficult working with the problem we're facing is whether you define it as objectives or approaches. It is ultimately defining a philosophy that we think has to be considered. I think that it is very difficult for me to respond to a specific proposal until I know what the ball park is going to be. For example, are we talking equal spending or equalized spending? Each of those have different approaches that you would use in applying a formula. I think each one has a different rationale in relationship to law. It would be my bias that to some degree we could find legal means of meeting **Serrano** in anyone of those tracks, but we need to know which one we are going on. We need something set if we are going to develop models that meet each one of the methods. I could live with either approach, if I knew where we are going. For example, as I see the compromises in your approach, I understand the political reactions and the necessity of doing those things. I might quarrel with methodology. I might wonder whether or not this creeping escalation is the right way to respond to the **Serrano** question. But I wonder if at some point we could use this to get at where we are going to go. What do we mean by base philosophies? Then, are we going to hang our hat on one or two of them and, if so, then let's get the research and the methods implemented.

BURNHAM - Mr. Chairman, would you consider reversing the agenda and start with goals of the Advisory Committee and work down?

HICKROD - Surely, I think that we could do that.

MICHAS - If you do reverse it, I have done some work on this matter since the last meeting.

HICKROD - Why don't you just kick it off. I think that it would help a lot.

MICHAS - I have put my ideas down on paper in a logical sequence of events which we could take and analyze the problem. I am particularly interested in seeing models developed for handling the school finance problem. I have titled

my ideas, "Suggestions for the Directions which the Advisory Might Take During Our Research." I start out with a measure of fiscal capacity. As a first step in understanding the school finance problem in Illinois, I feel it is necessary to empirically measure the degree of disequalization of educational finance which presently exists in Illinois on the basis of both tax and educational equity. What the Advisory Committee should first do, in my mind, is to estimate the fiscal capacity in each and all of the school districts in Illinois. I admit this will be no easy task, but once we have an adequate measure we could determine at what levels of fiscal expenditure the primary and secondary schools are truly equalizing. I believe that assessed valuation of property per pupil is not an adequate measure of fiscal capacity. For example, the Chicago School District has a relatively high pupil assessed evaluation, but this does not provide an accurate indication of their ability to pay. There are difficulties in carrying out empirical estimations of fiscal capacity in school districts because of the difficulties in developing accurate estimates of income data for school districts. I think, however, this is a problem with which we will have to contend if we are to make significant headway. I believe that there is enough expertise on the committee to carry out the requisite empirical study.

The next issue to which we need to address ourselves is that of simulations of various finance models which are capable of redressing inequities presently existing in Illinois. It is important to stress that we, as an Advisory Committee, need to present to the Superintendent of Public Instruction and the people of Illinois the various models and their implications so that a sound decision may be made by those whose responsibility it is to make policy. We, on the committee, should be certain that the fiscal aspects of the model are understandable. While we can afford to make our own value judgment concerning the relative merits of the various models, the presentation of the models should be in such a way that the merits and demerits can be understood. The various school finance models may be considered in two broad categories. One is full state funding. We have gone over this before so I will just say a few words about it. Consideration can be given to full state funding by taking into account the possibilities concerning the property tax. One is the retention of the property tax, with collection of the tax assumed by the state. The other possibility is that the school property tax would be the sole concern of municipalities and education would be financed out of state sales and income taxes. Obviously, there are a great many questions involved in such an approach. For example, if the property tax becomes the state responsibility, does this mean that municipalities will not be able to tap their tax bases for other purposes of local concern? We must certainly specify the parameters involved in determining the effects of changes in one or more of them. The second category is continuation of partial funding at the local level. If we consider models which incorporate retention of the local property tax, at least a means of partial financing education expenditures, we must explore all possible means of insuring that funds from higher levels of government are distributed in an equalizing manner. We will need to answer questions such as, what will be necessary to equalize expenditures per pupil? What kind of grants program will we need? In terms of local leeway - Are we going to introduce into our models elements of local leeway to permit districts to tax beyond the maximum amount? Perhaps we should simulate two models, one leading to complete equalization using district power equalization and the other permitting a special district to tax itself more intensely in order to provide its children with a greater scope of educational services. It should be recognized that the federated government structure is designed to permit citizens a measure of choice in the consumption of goods. We should look carefully into this matter as no local leeway means that all school districts must extend exactly the same level of education per pupil. Consumer sovereignty is therefore restricted which leads society away from its assumed goal of welfare for its citizens. I have covered tax equity up to this point.

The next major issue is education equity. Up to this point, most attention has been paid to models employing different tax instruments and different percentages of local or state funds. Equalization of funds was made on a per pupil basis without taking into account the make up of a heterogeneous student population. The fact that Serrano-type decisions seem to stress tax equity rather than educational equity is no reason for us to preclude such considerations. I believe that it will be necessary to incorporate consideration of student needs in the design of alternative models. Following the National Educational Finance Project, the total education process can be broken down into programs whose function and components can be related to pupil needs and development. The programs which measured the differential costs have been developed and include the following: early childhood education, elementary education, special education, compensatory education, and vocational education. I believe that the committee should examine models which cannot only be adjusted to compensate for deficiencies in the fiscal abilities of school districts but also account for the educational needs of students. In other words, any requirement for state funds introduced in a model should specify allowances for the various costs per unit and per individual for educational needs.

Another important question to which we may address ourselves is school district reorganization. We could take into account alternative structural arrangements which conform to the changing social and cultural development of society that expand and improve the opportunities for programs. An example would be the investigation of the economies of scale in the present structure of school districts. I am not sure whether this responsibility should lie within our province or not. How does the committee feel about it?

In order to get to our task of recommending requirements for school finance systems, I would suggest that the Advisory Committee create two or three subcommittees to formulate alternative models to resolve the school finance problem in Illinois. The first subcommittee would be made responsible for setting up models which would hopefully resolve the tax equity problem. Their task would be to design models which would lead to equalization of expenditures with regard to fiscal capacity. Simulations could then be carried out with actual data to determine the cost of such a program. Such considerations as full state funding, use of the property tax or other tax instruments, and equalization formulas would be included in the responsibilities of this subcommittee. As members of this subcommittee, I would suggest two public finance economists, two educational specialists well versed in finance, one school administrator, and one OSPI representative. The second subcommittee would be responsible for suggesting alternative models concerned primarily with equalization of school services provided pupils on the basis of differential need. An equalization formula based on the differential costs of programs meeting different educational needs of pupils could be tied in with equalization proposals of the first subcommittee. As members of this second subcommittee, I suggest two educational specialists, one school administrator, one economist, and one OSPI representative. I suggest also that there be one member from each of the two committees on the other committee so that there is close liaison. A third subcommittee could be entrusted with the responsibility of suggesting what changes might be made in the operational characteristics of the school districts to improve their educational abilities. Perhaps this subcommittee might wish to consider various alternative structural arrangements. On this subcommittee, I would suggest two school administrators, two educational specialists, and one OSPI representative.

That is basically the view I put together at the last meeting about what we ought to do. I feel that there are a lot of good ideas floating around. We have seen many papers on this, but I think that we should bring this together in a logical format. What do you think?

HICKROD - I think that lays out very well some of the basic questions and problems we have. The question of subcommittees is a very good one. The Governor's Task Force is recommending the following subcommittees: Revenue, Expenditures, Urban Schools, Salaries, Capital Construction, and Alternative Systems of Aid Distribution. There is a strong emphasis on revenue and taxation in the Governor's group and, while it is certainly represented here, I can well understand why we need a subcommittee on revenue.

ESLICK - There is one other subcommittee in the Governor's group - Rules.

HICKROD - What is the pleasure of the group on subcommittees? Also, what are your views on scheduling?

ESLICK - My feeling is that we should make a recommendation that can be used in the 1973 Legislative Session. It might not be a total recommendation. It may be one that prescribes actions that would extend over a period of time that may require subsequent legislation in 1975, 1977, or whatever have you. All of you know the reasoning behind that. I would hope that you will have something pretty complete by January as well as some recommendations for reforms which could be done before that date. Consequently, I believe that we must have some kind of conceptual framework so that we can move as quickly as possible to make some decisions in this matter. I think it is important that we do this rather soon, because it seems to me that the same kinds of decisions are being made right now on the Governor's School Finance Task Force and that if there are real possibilities for effective coordination, it should be at this particular point in time. The decision-making process could be made so that the two groups could be matched as well as possible while providing what, I believe, is important - political protection to the proposals and reports of both groups. I say that in light of the fact that the Governor is subject to election withdrawal and in light of the results of last Tuesday's election, which, it seems to me, increases the uncertainty of the political consequences far greater than they already were. I think that those of us who are sincerely interested in educational finance and educational finance reform, as the Superintendent is, want to insure that the work will have a sponsor that is politically viable after November. I see this Advisory Committee as fulfilling that function. If the two committees are effectively coordinated and the Governor runs into difficulty this fall, this committee could become an even more important vehicle than it is today because it still has a viable political structure. If the Governor should be defeated, the work of the other commission could be halted or downplayed.

SCHOEPLEIN - I do think putting a 16-member committee into small task forces, as I indicated to all of you in the memo I wrote on March 13, is a good idea. While we cannot read too much into titles of subcommittees, I do feel that there is a difference between the Governor's Task Force committees and what Nick has proposed. Nick has suggested that we break into subcommittees based on tasks. I prefer that to what I have seen on the other side of the Governor's Task Force breakout.

McLURE - I think he has made a very good point here . . . because we have mentioned all of these. The paper I gave you at the last meeting has every point you made in it. But I think it is very significant - your view of the approach. I don't think we ought to second guess the Governor's Commission. I don't think it makes any difference what the Governor's Commission is doing, although it is good for us to know what they are doing and communicate with them. They are probably thinking along the same source we are. The same kind of basic knowledge and basic problems. Again, it is good to know, but I don't think it alters what I see as our mission. It seems to me, and here, Alan, I am going to criticize your paper, you and Ben were trying to make the political decisions. You were trying to rationalize the problem. I think that that will come out in the end. Our problem, as I see it, is to define the task - the alternatives - the basic frames. The frame of a research problem, that's the problem that may anticipate some of the points you summarize in your paper, but it doesn't use them as a means of structuring the alternatives. I don't think that you can make decisions before you sort out the alternatives to be examined. As for organization, I think it is good to argue out some of the ideas and views and identify the tasks. I see about four task areas. We ought to have somebody exploring the nature of the tax problem - the property tax and difficulties with it. Consider the kinds of adjustments that might be made. The question of whether the state might take it over or leave it to the local district is a political decision. It makes no difference how you collect data, whether it will be a state or local collected tax. All that I am saying is collection of basic data makes no difference.

COHEN - I think that I agree with what you are saying, if you are also saying that before a decision is made as to whether you want to go with a statewide property tax or not that we have the data to insure that certain things are done. For example, if you find that the inequities in terms of assessments between school districts is rather horrendous, it is one thing to say, "OK, you know this." versus "What are we going to insure being done before we move to a statewide property tax." It will be a hell of a situation in equity if we move unless certain things are done.

McLURE - All I am saying in response to your question is that for us to illustrate the problem, we first need to know what the inequity is. That is a basic research problem. That is not a political problem. It may be a problem to solve, but, for us, it is a research problem to find out what the inequity is. When it comes to applying the basic data for our model, if we can get data to modify the inequity, then that is our problem to show what the situation would be if the inequity is removed according to our criteria. As to the question of whether or not that would be acceptable politically, I haven't the least concern right now. I think that we do have the obligation to display the information on which the political decision will be debated. I think that is our obligation.

To return my delineation of tasks, aside from special study in taxation, I think we need a special study on the organizational question. Do we want, as a committee, to study the question of school district organization? This, it seems to me, is a question we might discuss. We should decide whether or not to explore this question. Number three, I think we need a special study on the capital facilities. We need to examine that subject, in my opinion. This is very much a neglected field.

The other thing which is basic, on which these things really converge and contribute to, is the question of a basic fiscal model. It is essentially something that involves a concept of equalization, that is a paramount concept today. I would like to argue that it really makes no difference what approach we use in terms of equalization. I have a handout which illustrates percentage equalizing - Strayer-Haig traditional equalizing. It doesn't make a bit of difference which one of those we use. I am talking about the point of view of any model you want to show - to deal with the concept of equalization, the question of incentive, the question of local determination, the question of determining expenditures - you name it. It doesn't make one bit of difference. In my judgment the question of deciding the formula is a political decision, not a technical decision. I really think that this may be a hang-up for us if we aren't careful. As I listen to your papers on the formula for power equalizing, I want to illustrate here, so far as calculating and dealing with the fundamental issues, it really doesn't matter which one we use. I just hope that you don't get hung up on formulae.

COHEN - I agree except where you say "political decision." We are going to be in a position to help the politician by telling him what the consequences are of one way versus the other.

McLURE - There isn't one way versus the other. That's my position, Leo. This is what I mean. In the first section of my paper, I have compared three types of equalization formulae. I started with the first category, resource equalizers. I illustrated with Alan's and Ben's symbols. In fact, I have tried to use those symbols throughout. Now I picked three levels. In Number One under One, Vi, the assessed value per unit is \$42,000. That is the one you suggested. At that level that district will get no state aid at a \$3.00 tax rate. I applied a uniform \$3.00. You are assuming an actual rate. This would be a way of introducing incentive into the formula. I am not arguing against that. I am just illustrating my

point of the basic formulae. They get no aid. The next Vi is \$22,756. That is a median assessed evaluation in the 1970 assessment of unit districts and these illustrations are based on the unit districts. That district gets \$577.00. With an arbitrarily selected \$10,000 assessed valuation, it gets \$960. The point is, when you select power equalizing you automatically pick the foundation level of \$1260, at the potential of a \$3.00 tax rate. The power equalizing formula simply shifts attention from the foundation level to the tax rate. It doesn't alter your foundation level at all. If we go to the percentage equalizing, I pick the same levels, you get the same figures. It is simply a difference of formula. The median district still gets \$577.00. The formula simply demands that you pick the district of wealth on which you based your model. Using the Strayer-Haig approach, as we do in Illinois, where we first define the expenditure level, we say \$1260 is the guaranteed foundation level. That is exactly what we have guaranteed in the other two formulae. If we set the tax rate at \$3.00, we get the same amount of money for each district. If we want to introduce the incentive factor, we can do it in Number Three just as easily as we can in Number Two or Number One. My only point is that I don't think we should sell the public that power equalizing is a new approach. It may be a new mathematical approach, but we have the same elements in the formula. We have a tax rate; we have a foundation level; and we are accomplishing the same thing to a penny.

SCHOEPLEIN - I think we are moving along toward defining alternative task subcommittees. Nick specified three and Bill specified four. I think that we should also consider the implications of alternative a, b, or c or d. What are the implications on educational resources for the state? In other words, how will families respond to this? How will it affect migratory patterns? How will it affect rural areas? How will it affect metropolitan areas? Therefore, to Nick's list and Bill's list I would like to add something which might be called broader implications or response implications, which are different for various allocative models. I see allocative models as based on a point in time. They are static in that sense. A static model doesn't tell us how large shifts in dollars might affect schools or affect migratory patterns.

HICKROD - I think we now have about five subcommittees.

ESLICK - I just want to comment on some of these things and some other things that I know are going on, in particular to the district organizational question. I think it is an important question, but there are so many things happening in the area that tend to confuse, rather than contribute to, the question. There is, for example, a suit in the Federal Court in Chicago addressing itself to the school aid formula, called the **Rothschild** suit. The Superintendent, who is the defendant in the suit, has faced the fact that it is a reorganization suit, initiated to bring about some reorganization. We have urged the Court in chambers to deal with this kind of solution to the case and thus far the Judge has been quite receptive to that plea. There are efforts being made there. Negotiations are presently under way with the School Problems Commission in terms of a survey of present organizational problems and the possibility of some type of mandatory organization legislation being explored. The Governor's Commission on Schools - Task Force on Governance is exploring the question of reorganization. So it seems to me, as we said initially, the members of this committee could well participate in the organizational question by addressing their individual interests to some of these other forms. I believe that is an effective way, rather than have another commission deal with the same question at another time. The other thing I would like to clarify is this Capital Assistance thing. I think there is some confusion about that. Originally, I asked members of my staff to contact Bob Burnham and others who are reputed to be knowledgeable in the area of capital assistance programs to initiate a very quick inquiry into the possibility of an almost immediate program to be introduced to the Assembly as a groundbreaker to get the General Assembly to think about the concepts of state participation in the financing of school buildings. Bob agreed to work on that. In addition to Bob, we asked John Moore of the School Building Commission and Ralph Belnap of Southern Illinois University and two or three other superintendents and researchers to join the group. Two months or so ago, I went to a very productive meeting with this group. It was evident immediately that nothing could really be produced in such short order. The committee determined to continue to explore this field in greater depth and make subsequent presentations in this full committee. Thus, the reason it emerged in an abnormal way was because of the original interest in such a short term project. I would hope that the committee would consider how to deal with this and maybe it might be recommended that the other members of the Capital Assistance Subcommittee be made members of this Advisory Committee, or maybe the present structure is preferable.

HEMPSTEAD - It would seem to me, Don, that in asking for these past subgroups, we may already have a nucleus of one group.

McLURE - My only reaction to that is that I don't quite see it as a subcommittee of the group, simply another form of the allocative models. You see, an allocative model is not static. You may see it as such, but it is not a static model. I would say we can't deal with it simply as a static model. It is subject to these shifts and changes that would occur from the inner city to the suburb. I don't think that you can resolve the issue outside of a committee working on the allocative models. That is why I think the fifth one is not a viable working group.

SCHOEPLEIN - Let me respond to that by saying that the paper that I have written will explain my point better than I can. I did see that there is more than just what he mentioned, questions of inequity. My interest, in addition to inequity, is a question of reallocation, in other words, rates of construction of multiple dwellings, things of this nature. This would be picked up in a redistribution model, after the fact. In other words, as households make their decision to move from the city out into suburbia, they will change school districts. This will be recorded in the school finance redistribution formula and will redistribute money elsewhere.

McLURE - I see it as two different things. I can see that you are thinking of special allocation problems for services of the government. Now if you want to work on that, that is alright, but I see that as a special kind of category.

HICKROD - I think that responds to what I was saying earlier. I still feel that we have to discuss equality of efforts. I think that while we need not become finally a political committee that we would be naive to recognize that it isn't a fundamental part of anything we do. We had better at least talk it out so we know the political implications of what you can accomplish by many different methods. We should at least have the answers ready when it comes out in the paper. There are some fundamental questions of what we are trying to do that I think have to be resolved. I think there are only two or three options that we ought to keep in mind, and at some time I would hope to get that discussion from this group so we can get that cleared. First, however, I think that we should hear Professor Schoepfle's paper and have some comments on that and return to this discussion later.

SCHOEPLEIN - Let me suggest to you that we just review two pages, page 19 and page 20. These are concluding paragraphs, they relate to the prior dozen pages of data and analysis. On page 19, I conclude the second section of the paper - school finance and metropolitan change. I concentrated, in the paper, on metropolitan areas. This is not to say that I am neglecting the rural population. I am concentrating on urban areas because that is one of my interests and that is one of the limitations of the scope of the paper. I raise on page 19 a question that relates to the previous pages and I am assuming that there may be some change in the actual rates of the local-rural property taxes. I ask this question. "Could changes in property tax in public schools have a significant effect both on the rate which would be the overall rate within a large metropolitan area and the pattern which involved in development"? We have considered here only changes in school finance on residential development, specifically residential mobility, residential location, and new residential construction. Differential property taxes of local schools also have some influence on the decision for industrial and commercial location and nonresidential change have some impact on school operation. The principal concern of this paper is whether change in school finance will affect residential mobility, both in the rate of movement and the ultimate location change. We have not previously had such a potential change in school finances and this, frankly, is why as a public finance economist I am somewhat enthusiastic about a number of things. One, as a public finance economist, we have never had any reduction in property taxes. Secondly, as a public finance economist, we have never had, either among or between school finance districts, the possibility of changes in two directions, the possibility of reduction in local taxes and simultaneously within that district an increase of expenditures per pupil. This is a new horizon for us. As I previously said, there are several courses of funding to replace reliance on local property taxes. Some alternatives could initially reduce the property tax to education by 50% or more. On the other side of the ledger, poor school districts could receive school support that could be translated to \$100 to \$200 per pupil. The results of recent studies that I have analyzed in this paper, which relates to household response to the effect on property taxes or the changes of school spending, suggest that significant alternatives in school finance proposals can indeed affect rates and patterns of household mobility. In the rate of metropolitan development some school finance proposals could accelerate construction or land development of urban areas. The reduced property tax and the increased corresponding state school support would provide a strong impetus for construction of new family units in areas with previously high affected tax rates and lower quality education. Again, a shift in school finances may induce the acceleration in several family dwellings in other underdeveloped areas. Changes may also affect the overall rate of new construction of local dwellings and units. Profit markets and other areas are sensitive to changes in property tax rates. We distinguish areawide changes in rates and changes in patterns of development.

Dealing with the last paragraph, and I think this would be my response to the relevancy, the consideration of the impact over a period of time. All of this changed activity, of course, has direct bearing on school operation. Educational needs follow households of children. Moreover, the characteristics of households moving within metropolitan areas, for example, income rates for occupation, will affect facets of school programs and school finance. So this is the factor we have alluded to in our reading and I mention it now. This is a study paper, a work paper. I endeavored to minimize the numbers and terminology. My reason or my motivation for writing this was merely a think piece for all of us to appreciate that the household may indeed respond to changes in school finance and property taxes as they responded in the latter '50's and early '60's to changes in metropolitan systems of transportation.

HEMPSTEAD - From what you have said so far, I would agree, but you have not concluded as to whether or not, from the public point of view, this would be good or not. Now is this a conclusion that we would have to consider - that there would be some shifting in building or some shifting in housing patterns and so forth. In other words, if we agree with this that no matter what we commit in changes of the tax structure of changing the amount spent per pupil if we do approach this equality in status which causes the things you mentioned, so what.

HICKROD - I think you're going both ways. You are really saying that the school finance structure in itself contributes to the polarization of communities in the metropolitan areas and by changing the financial structure you can perhaps have some effect on this migration movement.

SCHOEPLEIN - I am suggesting that there are alternatives in A, B, C, or D, and that we have to consider these alternatives in terms of a difference.

McLURE - I would draw the attention of the committee to the fact that the Presidential Committee on Schools made a very flat statement that the financial system should contribute to a socially mixed or heterogeneous school district and that this was a goal of the financial setup. This is a controversial point but nevertheless this commission would, although it is composed of a number of people with different points of view, agree that this is a goal of financial setup and I think that your paper speaks to this point.

ESLICK - I will assume that the school age population remains constant in the State of Illinois for purposes of an example. Change in school finance still may have a significant impact on resources. Why? Because of movement and mobility. If changes in school finance accelerate the rate of mobility from the core city to the country and undeveloped areas, there will be new school construction that would not have occurred at the same rate as construction under the previous methods of financing schools. Of course, there are many more implications, but I want to stick just to education and educational finance.

HICKROD - Did you start with or did you end with the point the Presidential Commission made that the financial structure should contribute to the model which would encourage socioeconomic heterogeneous school districts.

SCHOEPLEIN - I cannot answer your question as I have not considered it at this point. If it might accelerate construction of housing in underdeveloped areas, the next question would be what are the characteristics of the family which is moving from the city to the suburbs to moderately priced dwellings.

STRONG - I think it would be well for Bob to follow up on this. Considering the various issues bubbling up today, I think it would be well to pursue this. I don't think the President's Commission dealt with this in detail. They just enunciated it. It is an important position which will undoubtedly, in the terms of educational policy, promote some court decisions. I think if you could go into the suburbs and get some empirical analysis to what has happened over a period of time this would be very helpful.

HICKROD - Last week the Superintendent and Assistant Superintendent from the Valley View District were talking to us about capital assistance grants and planning programs. They are undergoing significant changes in that district this summer. The high school district is going to a 12-month program as the elementary district has already done. The district has grown from 800 pupils 12 years ago to, after they combined into a unit district, 10,000. They anticipate by 1980 to have 32,000 pupils and it seems to me that that particular district because of their concern about this rapid growth, would be most happy to cooperate with you in exploring the implications for their district. I'm sure that Don has some similar reactions and we have other superintendents here who might offer the opportunity to study their district.

JONES - I think, at least theoretically, it's a very provocative point. As all of us know the distribution of human resources which is in a metropolitan area affects the financing of education and I think you are suggesting that the equation works two ways and that the other way is equally worth investigating.

BURNHAM - I'm sure we're all aware that there are many other variables. I think the availability of property as far as a closed community which has certain economic overlays is going to be a variable within our preview. The degree to which we allow variability in expenditures or disallow it, or the degree to which we truly equalize or don't equalize are going to be important variables. I think as we explore each one of those options we have to think, within that framework, what the input is. I think that that input makes the difference in the ultimate political value judgments that are going to be made.

SCHOEPLEIN - There is no empirical research to build beyond that statement. There was no single study which really looked at school finance formulae in any sort of dynamic way. I think that this is one of the most important things that this group and the Governor's group could be doing. In any case, we are spending far too long talking about school finance formulae as a static concept. I would go one step further and say whatever kind of school finance we have or formula we devise, it's going to have some social engineering features. Now that's not a very pleasant feature, but any taxation mechanism has some overtones. It directs people to do certain things by providing some financial incentives. The key here is that you want to get people to make socially useful decisions.

McLURE - We're talking about external effects, the internal effects are similarly important. For instance, the formula on page 9 of Alan's paper includes everything except bonds and capital outlays. I presume that you are simply saying you would stay on the operating ends in terms of that formula. So I would ask, why exclude capital assistance? You don't need to respond, because I want a straw man. Education is already a labor intensive business and if you reward additional labor inputs, that is what we will have more of. If you exclude capital financing, you have a strong drawing point toward equipment technology and that form into education, so that this external effect is in there with the internal effect. We need to consider both sides of it.

HEMPSTEAD - Except that this concern that we have now is a concern which will happen if we equalize educational opportunities and we equalize tax paying ability no matter what kind of school finance we have. If we do equalize the expenditure per pupil through the state and/or equalize tax rate throughout the state, these are outcomes which will happen. It seems to me that this is certainly one of the things that we must consider. At this point I am wondering if this is not going to happen no matter what school financing program, committees, or this committee come up with if it meets those two criteria. So what I am saying is, I still think our major purpose is how are schools going to be financed?

SCHOEPLEIN - We are not in disagreement at all. I suggested this as one element of the total committee. Perhaps chronologically or logically it would be one of the last, because certainly Bill and Nick both have stressed allocative models.

HEMPSTEAD - I think the two major problems here, and I am trying to get down to basics, are where is the money coming from and how will we allocate it? Then there are many consequences of such problems.

McLURE - Would you accept just one amendment to that? Not how we spend it, but some alternatives of how they might decide. Not just one design but alternative designs. I keep insisting that maybe if we pick two, maybe three, basic allocative models then we can show all the consequences. If you want to do this, then here is the consequence. We aren't deciding it for you, but here are the basics which you can start thinking about to make your political decision.

MICHAS - I specify the alternative model and present the implications of each using your political value judgment. I'm not really disagreeing with Bob because no matter which alternative models we choose, his particular point is going to be one of the consequences.

HEINS - It's true to the extent that Bill's comments were true earlier about the differences between the various formulae. If, in fact, you equalize in such and such a fashion, it's probably true that these essentially same kinds of consequences will occur regardless of what the formulae used. Therefore, what you are saying is, "Well look, we have got to do this, we are mandated to do it anyway, let's not worry too much about the social consequences because they are written in the winds." But I don't think the mandate is quite that clear, because after all, we have opened two essential programs that we might work with; one is full state funding and the other is the use of one of the various formulae that allow for certain local leeway and local option. If you opt for full state funding, you might find certain substantial observable outcomes that would not occur with a degree of local options. Of course the extent will depend upon the extent of local options, the range of flexibility that schools are allowed to have. I seriously refuse to accept the principle that we're committed to full state funding or a degree of equalization that is equal to full state funding. I still think that we have to consider the range of things that allow some local options. I don't want to foreclose that, and I think that your comment tends to foreclose that.

Looking back, I would divide the issue into several divisions. The first question is, assuming additional state resources to be necessary, how should the state raise the money. Well, that suggests a subcommittee that could study various means of raising money. Second, to what extent should equalizing allotments be allowed to deviate from the actual dollar to reflect differential cost of education and differential quality of student input? It has been agreed that this falls into the framework of a subcommittee. Third, what controls, if any, should be placed on local districts and the disposition of

funds? For example, the distinction made between operating and capital expenditures. That seems to fall within a subcommittee. The fourth one, should equalizing be based on the property wealth of the district or some other measure such as taxable income? That was hinted at by Nick. These are implementation questions. A second class of questions, which I call the effect questions, relate to the total effect of educational programming in the state, effects on inner state migration and one thing that Bob did not include in his paper, but that we might want to consider is the inner state migration. Another thing is private school enrollment. I think we have really reached the stage now where we could talk about explicit construction of subcommittees.

(The committee adjourned for lunch.)

BURNHAM - Just to bring you up-to-date on the Capital Assistance Study Group, and I appreciate Eslick's earlier comments which explain the formation and genesis of that committee, we met shortly after our meeting in Chicago and what we discussed, in the most part, was the same thing we are going through here - definition of task and what kinds of general information we needed. The general tone of the meeting was that there was not an abundance of information of capital needs in the state and that one of the major problems of that subcommittee will be to simply try to find or generate accurate information of capital facilities needs. Some of the more recent information in terms of a school house facilities inventory goes back to about 1964. To obtain an accurate count and age of buildings, we have asked OSPI to attach to the Annual Report this year another form that will ask districts for the number of school buildings in use for instructional purposes, approximate capacity of these buildings, both in terms of the number of classrooms and the number of pupils they will house, the year of construction, and something about the ownership of the building if it's not directly school property. Also, we will ask some general questions about the condition of the building and how long the district plans to keep the building in use. Information will be directed as initial baseline information to get a handle on the 4,390 school buildings that are in use. Then we will be able to draw a stratified proportional sample and send people directly out to the schools for physical inspection to find out something about the condition of the building. We can then make extrapolations from that kind of inventory and determine what it will take in terms of dollars to get it up to some kind of standard. The other aspect of the committee is the establishment of criteria for evaluating school buildings and setting up our own guidelines to enable us to determine whether these buildings should be phased out, rehabilitated, renovated, or simply replaced. Without going into it in any further depth that about summarizes where we were at the end of the committee meeting. I think Chuck Hempstead and some other people have been working over the survey instrument for quite a while and thus far that is what it will look like. If there are any questions, I would be glad to respond to them. Otherwise, we are trying accurately to say what the facilities' needs are. It ties in very closely to what Bob Schoepfle was saying. We realize that migration and movement patterns can affect and alter facilities' needs overnight. We are also fairly sure, but we need to test it empirically, that there is quite a backlog of building needs.

HOWARD - Practically all that information is available on our Annual Report this year, building agents and relations to building code standards.

BURNHAM - Someone from OSPI should react specifically. What kinds of problems that the information that they ask on the Annual Report are categorized by buildings built prior to 1960 or when the life safety code came in. It doesn't give us the kind of accurate information we need for drawing specific ten-year intervals.

STRONG - Well, the way we reported our buildings, we recorded by date. This was part of our report - when the facilities were built, the number of standard classrooms, and, of course, the total number of buildings. We stated whether or not these buildings were in compliance with the life safety code. I think there is a lot of information there. The thing to me, however, is the fact that you may have built a good building and not considered the site to be important. You might have this building on half an acre instead of 15 and so for educational purposes it is not properly built.

HEMPSTEAD - That's why we're asking superintendents to tell us how long they plan to keep the building in use. There are many fairly new buildings which are simply in the wrong places.

STRONG - I'm sure one of the other problems you have run into on the question of adequacy of schools is - adequate for what? What are the things that you are attempting to accomplish?

BURNHAM - That's why I say the initial go around is not to come up with definitive answers, but to give us a basis on which to go out to talk to superintendents more directly.

HEMPSTEAD - I might add that we are involved in it. Jim Howard will be looking at this more closely in the next few days to see how we could best get this information. We do not think that we are subject to the Annual Report at this time. We would rather run this as a separate study. I think we would do a better job. We would still have some of the information on the Annual Report that you had mentioned. We hope to be able to use it to fill in with some of the more serious information you are asking.

STRONG - There are problems with that. For example, we have ten buildings. If you ask how long we plan to keep them in use and I had my way, we would abandon eight of them right now.

BURNHAM - The other problem is that the way that OSPI has asked for the information relates to attendance centers and publically owned centers. It doesn't tell us how many classrooms are running. In fact, sometimes, it doesn't even include the relocatable classrooms. We're trying to tap into that.

HEMPSTEAD - We have never collected information by attendance centers in the past but I think it can be done.

HICKROD - If there are no further questions on the Capital Project, let's turn to school finance alternatives.

McLURE - I have no handout on this. I'll just give you a few comments. I'm still pursuing the general idea that we should establish a continuum between full state funding and what we have now as well as something in between. I'm really doing a little homework to design the specific details that are involved in setting up a computer program in the hopes that some of you fellows over in the office will go to work on it and use whatever data we have. I think that we are in a position where we might not be able to wait on a study to collect new data on modified tax information. It would be very nice if we had a study which showed district by district what the truly equalized issue would be, true in terms of given assumption. Whatever assumptions you might agree upon in assessment. I'm curious to know if we can get that information in time to use it. I would hope that we would be able to plug information into some of these programs we have just discussed. For example, should we include special education, or leave it out? From our point of view, I think we can do both. I think it would also apply to vocational education. Whatever program or model we use, let's plug them in. It doesn't hurt to compute it, if it isn't too much trouble, and show it both ways. Transportation and food service would have to be treated separately. There must be some limits on the assumption to equalize transportation service. Under certain conditions you would have to consider the full cost of it, rather than now when the local districts have most of the cost. We can demonstrate that kind of thing by taking the data that you now have in your data banks. As we develop these models, we will have to think of local leeway and restricting local leeway.

COHEN - If you take \$3.00 as a maximum, and I'm not arguing against it, I think the question arises whether it wouldn't be better to take a lower figure. If indeed they want to lower the burden on property tax over time, we could see what would happen at a \$2.00 rate. This could be done for illustrating alternative models. We could very easily punch out the actual tax rate to show what districts get under the present structure. There is another alternative that can easily be shown. Suppose you set the \$3.00 limit, what are you going to do with districts, such as Monticello with a \$100,000 plus evaluation?

I know there is a good amount of controversy among school finance people as to what the best measure of school capacity ought to be. Whether it ought to be property tax versus the economist's view which says income ought to be a measurement. But be that as it may, I think we all ought to be a little concerned as we move more and more towards the income tax as a significant means of equalizing in terms of the local level, although none of us could predict what will become of the mode. I suppose everyone has their biases. I could visualize that we move away completely from the property tax as a means of financing education, either through the local level or the state. I feel a formula should not be tampered with in terms of equalizing, for one basic reason: you don't have any data. I hope I am making my point, that we stay with the assessed evaluation as the basis for equalizing and at the same time have a property tax completely out of the system of financing education.

McLURE - The NEFP has income data for all unit districts. I think we can illustrate the point that you economists have been arguing. I think the reason that most of us have written off income as a measure is because fiscal capacity now has to be defined in terms of existing facilities.

COHEN - Are you saying that, because we don't have income data at the local level in school districts now that whether we could get it or not is irrelevant to measuring school district capacity at the local level?

SCHOEPLEIN No, it may be. It may be of significance.

COHEN - Wouldn't you want to see what the difference is between assessed evaluation per pupil and school district income levels? I am suggesting that I would just like to see that data on a school district to district basis. Then we could decide if we wanted evaluation data or a combination.

McLURE - Wayne Stone said that when you levy a certain tax rate on the people in Brookport, they are less able to pay that tax than the same amount of tax in Hinsdale. The point is I was curious to know if there is a relationship on a school district basis. Whether or not the ratio is different from very poor districts in terms of equal income and property assessments. I examined the data and found, for example, that the ratio does vary and the districts will have higher assessments per pupil. They have the lowest ratio of assessments per income. When you get down to the districts with low assessments, the income ratio is much higher. Brookport, for example, has a higher assessment per pupil than it does assessed evaluation of property tax. So this refuted the arguments that people had been making for years that an equal amount of tax hits the people in Brookport harder than it does in another district of the same assessed property tax.

COHEN - Let me make one point. Even if you and I could agree that there were equal measures of fiscal capacity, I think I would still opt for the income measurement for one obvious reason. I have more confidence in the way we measure income than in the way we assess property.

HEINS - I've been listening and wondering what's it all about. I think that I've figured it out. Let's assume Monticello is poor in terms of income, but rich in terms of assessed evaluation, because Illinois Power is there. If we equalize on the basis of income, Monticello gets a lot of money. If we equalize in terms of property evaluation, Monticello doesn't get any money. Essentially when you shift to equalization on an income basis, what you are doing is subsidizing Illinois Power. Because what you're doing is giving them lots of money so they won't have to raise property taxes from Illinois Power. If we presume that the assessed property among residential households is relatively in variant with respect to income, the only difference between districts has to do with industrial or commercial location. If this is true, by subsidizing on an income basis you're really creating another kind of income, namely that of business. I don't really think that if you have thought through some of these numbers, aside from assessed evaluation thing that you would want to subsidize in terms of income as long as we don't go to full state funding. As long as there is the property tax component that local school districts have, if you subsidize in terms of income, you're subsidizing business.

COHEN - I think you're making some assumptions that I am not making. First of all, you threw out an isolated example, which I would agree. Certainly you're changing the basis of the burden. Secondly, we're not saying what we're going to do with the property tax. We're not necessarily saying that we're going to get rid of the property tax. If we do get rid of it, we're going to replace it. The fact that we take the personal property tax off industry means that we would probably give it to them in the form of a corporate income tax. You can't take any system and expect it to run perfectly. I don't think you refute my point by saying that therefore you have concluded property tax or assessed evaluation is a better measurement than income per pupil.

HEINS - You see, you're using words that have nothing to do with ability to pay in that context. Do the residents of Monticello have the ability to pay for their schools or don't they? If you go to personal income as a measure, you say no. If you look at assessed evaluation, you say yes. What is the difference? The answer is simply because Illinois Power is there. All their ability to pay comes from Illinois Power. If you give aid to that school district on the basis of residential income, you are releasing Illinois Power from paying the taxes it currently pays to pay for the schools in Monticello. You may want to say that is an isolated example. On the contrary, what Bill is pointing out for all of us is to look at the relationship between property values and income. They are pretty close, except for some of these extreme examples. In the whole middle range of districts there is a very close relationship. It is the isolated examples that you are worried about because it is precisely those cases where you would be taking the money out of a Brookport and pouring it into a Monticello and into Illinois Power. I don't think you would want to do that.

SCHOEPLEIN - I do want to say this about income. People over at the Bureau of the Budget will have a basis to convert the income data according to school district. This will give us a photograph of household income, roughly by school districts.

JONES - That's right, the Bureau of the Budget is now converting the 1970 census data to income by school districts. This, however, has problems when you want to use the data for an allocation formula. It is, of course, useful for study

purposes. If you want to use it in an allocation formula, you really have to get a line item for Illinois state income taxes form. The Legislature could do that.

ESLICK - We're talking about next year's income tax forms now, and I don't know if that will be of any benefit to the work of the committee.

STRONG - McCarter, at one point, made a presentation to the Illinois Roundtable in which he talked about the power equalizing. He explained it as a Sherwood Forest Concept. For each penny of effort you get a constant amount. If you don't raise what you need, you get it. If you get more, you throw it in the pot. Did he have data underneath that? Does anybody know if we could translate that into some of these assessed evaluations problems we're talking about?

HICKROD - No, he didn't have a simulation of that.

JONES - That's actually quite similar to Alan's guaranteed evaluation formula. If you were to take that 6% of all students who are in the districts above the 42,000 dollar mark and if you were to take the revenue in excess of the guarantee from guaranteed evaluation and throw it back into the state General Fund for distribution to the poorer districts, then you would have pure power equalization the way Sugarman explained it.

HICKROD - There is one difference and that is talked about by Dick Rossmiller now. That is, simply shoving a large block grant under everything to start the equalization formula. If you make that adjustment, then there's no difference in the power equalizing thing as spelled out in the California Bill by Assemblyman Green. I think it is the operational definition of the Coons, Klune, Sugarman Proposal. They started off with \$600.00 per pupil and shoved it under the formula and the formula began on top of that. I think that we should develop a model on this.

HEINS - If you take everything off the top of the mandated amount and put it in the state coffer for redistribution, that's full state funding.

STRONG - Doesn't the Green formula say that the districts over and above the base may levy not more than, or not less than, a given amount? Isn't there a spread in there so they can have differential spending?

HICKROD - Yes, but everyone gets the \$600.00. One thing, if we simulate this on the computer, we need lead time. This involves consideration, patience, etc.

HEMPSTEAD - Especially, with the General Assembly coming in shortly.

ESLICK - It seems to me that what Bill is talking about relates to what we were talking about this morning, distribution systems. I was just wondering if we could resolve the loose ends by each member indicating in which area we have discussed that they have already started to work in and if they want to continue working in it. That way committees could be formed so that we can do our work in an economical and coordinated manner.

HICKROD - On this subcommittee thing we talked about a while ago--for working purposes I believe we have four subcommittees. First, revenue sources which will be chaired by Leo Cohen. Second, alternative models which Bill McLure will head up. Third, the Capital Assistance group which Bob Burnham has. And four, Bob Schoeplein's broader ramifications subcommittee. The work of these groups will, of course, have to come back to the committee as a whole but for working purposes, dividing into separate groups should facilitate accomplishment of our task.

MAY MEETING

SUPERINTENDENT'S ADVISORY COMMITTEE

ON SCHOOL FINANCE

MEMORANDUM ON SUBCOMMITTEE FORMATION

Don Eslick

The March meeting of the Advisory Committee on School Finance was a very important one in that, after two meetings of wide-ranging discussion, definite direction and organization was developed by the Committee. Chairmen of four subcommittees were named to direct research in four important areas: alternative fund distribution systems; revenue sources; state capital assistance; and broader social ramifications of school finance change. Those who have not already done so should contact the Chairman of the group with which they wish to work.

The following outlines, in a general suggestive sense, the tasks to be accomplished by each sub-committee.

REVENUE SOURCES: Chairman: Leo Cohen, Regional & Urban Development,
Box 32, SIU, Edwardsville, Illinois 62025
618/692-3032

This group will analyze the various types of taxes which might be used to fund education (e.g., income tax, sales tax, property tax). This analysis should include, but not be limited to, the following:

- 1) Projection to 1980 of revenue availability of existing types of school tax rates;
- 2) The relationships among local-state-federal sources of education revenue;
- 3) Consideration of the following taxing districts for each type of tax:
 - a) local school districts
 - b) counties
 - c) regions (perhaps covering the same areas as the ESR's)
 - d) state;
- 4) Comparison of the fiscal ability of school districts according to different tax types;
- 5) Effect of various tax changes on taxpayer equity by income levels and in terms of individuals and corporations;
- 6) Administrative reform of the present tax system;
- 7) Transitional problems and recommendations for dealing with them.

In general, the different types of taxes should be researched in terms of varying rates, collection systems, and time lines for implementation. For example, how much revenue will be lost by the mandatory elimination of personal property taxes and what tax at what rate can best recoup this loss. In terms of real property tax, is the most effective approach to meet the needs of Illinois a uniform tax rate or a uniform assessment system?

ALTERNATIVES: Chairman: William McLure, Bureau of Educational Research,
University of Illinois, Champaign-Urbana 61801 217/333-3023

This group will analyze alternative distribution models beginning, perhaps, with the 18 variations presented by the NEFP. This analysis should include, but not be limited to:

- 1) Development of a set of evaluative criteria and goals for educational finance systems;
- 2) Models ranging from the present school finance system to full state funding;
- 3) The equalization power of various weighting, flat grants, and multiplier approaches;
- 4) The extent to which the new program should be categorical;
- 5) Local leeway;
- 6) Leveling up vs. leveling down;
- 7) Transitional problems and recommendation of how to deal with them.

The research should include district comparisons for each alternative. It should determine which financing method fulfills equalization criteria and is best suited to the needs of Illinois schools.

CAPITAL ASSISTANCE:

Chairman:

Robert Burnham, School of Education, University of Illinois, Urbana 61801 217/333-2155

The tasks of this group have been somewhat developed. The first concern is surveying the present capital needs of Illinois school districts. Some of the necessary data will be gathered by a questionnaire distributed by OSPI to school districts in the Annual Housing Report. On the basis of this information, the cost of such a program can be estimated. Aside from capital needs, the group should determine:

- 1) Projection to 1980 of the capital needs of Illinois school districts;
- 2) Various methods and levels of state assistance;
- 3) Methods of debt financing and retirement and procedures for funding the program;
- 4) Distribution systems as they relate to new construction, rehabilitation, renovation, and replacement;
- 5) Obligations of the State and local districts during transition;
- 6) Methods of equalization including an equitable means of dealing with districts which have recently financed a capital project and those which have not.

Factors 3 and 4 can be studied in light of revenue projections developed by the Sources group and related to distribution models tested by the Alternatives sub-committee.

BROADER RAMIFICATIONS:

Chairman:

Robert Schoeplein, Institute of Government and Public Affairs, University of Illinois, Urbana 61801 217/333-3340

This group will study the two-way relationship between school finance and community variables. Factors to be analyzed should include, but not be limited to;

- 1) Demographic variables such as population movement and migration, racial integration, and birth rates;
- 2) Industrial migration and land conversion and usage;
- 3) Socio-economic variables such as income levels, property valuations, and employment trends;
- 4) Local control; and
- 5) The relationships between school boards and other local governmental units.

All variables studied should be related to both different revenue sources and distribution systems. Of particular importance is the question of local control. This is a vital issue among local superintendents and citizens. They believe that increased state or federal funding, which may occur, will destroy or severely curtail the exercise of local control over local schools. Since this will be a point of major debate, if and when a new school finance system is proposed, it should be thoroughly researched.

A preliminary work schedule for each subcommittee should be developed and submitted to the Advisory Committee at the May 22 meeting. If further progress is made before this time, it should also be reported at this meeting. A tentative schedule for the Advisory Committee's reports is as follows:

July 15		Initial Subcommittee Reports
September 15		Preliminary Report
January 15		Final Report

THE RISING COST OF EDUCATIONAL INPUTS

by

Norman Walzer and Joseph Domitrz*

*Assistant Professors of Economics, Western Illinois University. The authors thank Mssrs. Charles Hempstead, Loren Nicols, and Leighton Wassem for making the data available. Needless to say, the authors accept full responsibility for any errors.

THE RISING COST OF EDUCATIONAL INPUTS

School systems across the country have been experiencing more and more difficulty meeting their financial commitments. One source suggests that "the school budget in most cities has doubled or even tripled in the last 10 years."¹ For example, in Baltimore the budget increased from \$57 million in 1961 to \$184 million in 1971. New Orleans and Boston increased from \$28.5 million to \$73.9 million and from \$35.4 million to \$95.7 million over the past decade.² The factors underlying these expenditure increases are well known. More and better trained teachers were needed to accommodate larger numbers of students. Major productivity increases have not been forthcoming, especially if the student/teacher ratio is used as a proxy. One may well feel that a better education is being provided now than a decade ago, but because education involves personal contact between students and teachers, the quality of education is frequently measured by the student/teacher ratio and the educational background of the teacher.

In addition to the perceived need for additional staff, teachers' salaries have been increasing. Several factors have contributed to these increases. First, the attitude of teachers toward vocalizing their desires for wage increases has changed. Teachers, as well as other public employees, are now willing to strike in order to obtain wage demands. In addition, more teachers are involved in negotiations now than ever before. For example, in 1967-68, approximately 900,000 teachers were working under a total of 2,200 written negotiated agreements.³ Whereas 25% of all school districts had some form of written agreement in 1967, only 1/10 of 1% had such procedures in 1963.⁴

Organized labor frequently arrives at wage figures through a comparison of wages in other occupations as well as in neighboring localities. In the private sector wages have increased, theoretically at least, because of productivity increases. To the extent that productivity changes in the public sector have lagged behind those in the private sector, wage increases may not be offset by corresponding "output" increases.⁵

This discussion does not suggest that wage increases of school personnel were or were not justified. The point of concern here is that wage and salary increases are one of several contributors to expenditure increases.

The other half of the financial dilemma currently faced by schools is the apparent unwillingness of voters to provide the funds necessary to meet these increasing demands. The Investment Bankers Association suggest that 77% of the bond issues were approved in 1960, but that only 37.5% were approved in 1970.⁶ Several explanations have been advanced for this voter reaction. First, the view is sometimes expressed that local officials do not present the bond issues in a manner that appeals to a sufficient number of voters.⁷

Others have suggested that voters facing higher and higher tax bills are turning down school bond issues to show their general discontent with rising taxes. Also, the argument has been made that revenue increases will only provide higher salaries for existing teachers and administrators without increasing the quality of education or educational personnel. Whatever the reasons for the bond refusals, local school systems must obtain money to meet the rising costs or face the alternative of shutting down operations until the new fiscal year provides additional funds.

Need for a Measure of Price Increases

The impact of inflation on the purchasing power of the dollar has received considerable attention in the press. Inflation presents a particular problem in education and the public sector in general because of their service-oriented product. Since output is difficult to quantify, citizens and administrators have tended to use the amount spent on education as a measure of the value of the output produced. The pitfalls of using expenditures per student or per capita for a cross-sectional analysis are well known but they are more severe when budgets or expenditures are studied over time. One must be concerned about the real resources available to education. Assuming no major productivity changes, if expenditure increases do not at least match price increases, the real resources devoted to education have decreased. It is not sufficient, therefore, to simply compare expenditures per student in 1960 with those in 1970 unless an adjustment for price changes has been made. One of the most unfortunate aspects of this problem is that relatively little attention has been paid to the impact of inflation on school budgets.⁸

A price index does not allow one to predict future price changes. However, based on a previous 10-year period one can gain a better idea of what to expect in the future. There is always the problem that the past price changes will in fact contribute to future inflation.

This potential for misuse is not a justification for ignoring past price changes. One must carefully distinguish a price index from an index of spatial price differences. A price index indicates the increases in the price of a market basket of goods *through time* resulting from inflation. An index of spatial price variations compares the price of a market basket of goods in different locations *at the same time*.

Construction of a Price Index

A price index has two major components: expenditure weights and price relatives. The price movements (price relatives) of each type of goods and services are weighted by the relative importance of each expenditure category in the total education budget. In mathematical notation, the price index can be shown as:

$$\frac{\sum P_1 Q_0}{\sum P_0 Q_0}$$

where Q_0 represents the quantities of goods and services purchased in the first time period. The P 's indicate prices of the goods and services in time period 0 and 1. This term reduces mathematically to:

$$\frac{\sum (P_1 Q_0)}{\sum (P_0 Q_0)}$$

which is the simple Laspeyres fixed-weight price index. The index described in this report has final year weights and is known to be a conservative estimate of price increases.

a. **Expenditure Weights.** The expenditure weights were calculated from 130 Illinois School District Annual Financial Reports for 1969-70. The sample was randomly selected by the Office of the Superintendent of Public Instruction and includes 15% of the school districts in the State. The composition of the sample is shown in an appendix to this paper.

Specifically, the expenditures in the financial reports were divided into 25 categories as shown in Table 1. Each category was calculated as a percentage of the total expenditure and these percentages were used to weight the price movements of each group.

b. **Price Relatives.** The annual prices of the various items were calculated as percentages of their 1960 values. Special care was taken so that the *same goods* were compared over time. For example, major improvements increasing the usefulness of a product or extending its life may be recorded incorrectly as price increases. If the quality of goods changes along with its price, this cannot be rightly termed inflation. We are concerned here only with price increases *not accompanied* by product improvements.

Ascertaining that the goods have not been altered over the period is not an easy task. In this index, price changes for the majority of goods were obtained from detailed data in the Consumer Price Index and Wholesale Price Index. Wage and salary movements of teachers were available, by school district, for each year from 1960 through 1970.⁹ Data on minimum and maximum salaries for the B.A. and M.A. degrees were obtained. The average of these values was calculated for each year and compared with previous years. Information could not be found on the distribution of the teachers within these groups. To the extent that teachers remaining within a system receive automatic salary increases the wage increases, as shown in this index, may be understated. However, these automatic increases may reflect improvements in teaching ability because of experience in the classroom.

Alternative Measures of Inflation

Several measures of price increases are already available so that one might question the need for an additional one. Each of the existing indices is designed for a particular group of goods and services. Using an index constructed for another purpose to represent the impact of inflation on school budgets can yield erroneous results. Several alternative indices will be considered so that the reader can see why each may be inappropriate for representing the price increases of goods and services purchased by Illinois school districts.

TABLE 1
PRICE INDEX DETAIL
1960-1970

Category	Expenditure Weight	1960		1965		1970	
		Price Relative	Product	Price Relative	Product	Price Relative	Product
Education Fund							
Salaries	52.8	100.0	5,280.0	117.2	6,187.1	172.5	9,105.4
Contractual services	1.1	100.0	105.0	116.6	122.4	154.0	161.7
Supplies	4.3	100.0	429.0	107.3	460.3	132.1	566.7
Travel	1.2	100.0	121.0	109.8	132.9	147.7	178.8
Heating & Utilities	1.1	100.0	107.0	113.1	121.0	139.0	148.7
Insurance	.4	100.0	37.0	116.8	43.2	147.6	54.6
Equipment Rental	.1	100.0	8.0	101.8	8.1	116.3	9.3
Additional Equipment	.8	100.0	81.0	101.5	82.2	120.2	97.4
Interest	.2	100.0	16.0	100.3	16.1	189.6	30.3
Retirement	.2	100.0	17.0	117.2	19.9	172.5	29.3
Other Expenditures	3.1	100.0	314.0	107.3	335.8	132.1	413.5
Other Funds							
Salaries	3.5	100.0	349.0	115.5	403.1	151.6	494.2
Contractual Services	.5	100.0	52.0	116.6	60.6	154.0	80.1
Supplies	.7	100.0	65.0	107.3	69.7	132.1	85.9
Travel	.1	100.0	4.0	109.8	4.4	147.7	5.9
Heating & Utilities	1.0	100.0	97.0	113.1	109.1	139.0	134.8
Retirement	.6	100.0	64.0	115.5	73.9	141.6	90.6
Insurance	1.7	100.0	165.0	116.8	192.8	147.6	243.6
Rent	.2	100.0	22.0	105.6	23.2	120.0	26.4
Replacement Equipment	.5	100.0	47.0	101.5	47.7	120.1	56.4
Additional Equipment	1.3	100.0	129.0	101.5	130.9	120.2	155.1
Site Acquisition	1.7	100.0	173.0	121.3	209.8	164.1	283.9
New Buildings	12.9	100.0	1,291.0	112.1	1,447.2	149.4	1,928.8
Interest & Bond Retirement	5.5	100.0	548.0	100.3	549.6	189.6	1,039.1
Other	4.8	100.0	479.0	107.3	513.9	132.1	632.8
Index Value			100.0		113.6		160.5

a. **Consumer Price Index.** This index is generally considered to be an indicator of general price changes in retail markets. The index is based on a sample of "4,343 urban families of 2 or more persons and of 517 single workers. . . ."¹⁰ Purchases made by wage earners differ substantially from those made by school districts, and therefore, the Consumer Price Index will not meaningfully depict the price increases of school district purchases. The Consumer Price Index does provide considerable information for the price movements of individual goods and services, many of which are purchased by educational institutions. The price movements of appropriate goods were incorporated into the education index.

b. **Wholesale Price Index.** The Wholesale Price Index is constructed to portray price increases in other than retail markets. This index is especially appropriate for inputs in the private sector. Like the CPI, this index includes many raw materials which are not purchased by schools. In addition, wages and salaries of teachers, a major component of school budgets, are not included. Again there is not a priori reason why the price increases as reported in the WPI should reflect the price increases faced by educational administrators.

c. **Implicit Price Deflator for State and Local Purchases.** This index is designed for total state and local purchases of which education accounts for about 40 percent.¹¹ Given that at least half of the state and local expenditures are noneducation oriented, this index may be inadequate for present purposes.

d. **School Management's Cost of Education Index.** Considerable effort has been expended by *School Management* toward developing a "cost of education" index.¹² The main goal is to provide information on the increase in real resources available to education. However, this index is based on a national sample and price increases may differ substantially among states depending on wage increases, etc. To the extent that teachers are more involved in collective negotiations in one state than in another, wages may rise at different rates. Teachers' salaries are approximately 60.6% of the median school district's budget according to the *School Management* study.¹³ From Table 1, one can see that in this Illinois sample salaries accounted for about 56% of the budget. This percentage will differ slightly depending on what items are included in the total expenditures. Including capital expenditures, for example, would reduce the percentages of the other items. The purpose of this study was to construct an index specifically for Illinois and not to criticize other existing indices.

Annual values for each of the indices discussed above are presented in Table 2. The data in the table suggest that it cost \$130.90 in 1970 to buy the same market basket of consumer goods that \$100.00 would have purchased in 1960. With respect to both education indices, prices have increased about 60% over the past decade. One should also note that price increases in the three public sector indices have increased more rapidly than in the private sector. Similar differences have been reported elsewhere.¹⁴ The two education indices are quite close. This may suggest that Illinois is close to the national average with respect to expenditure percentages and price increases. However, in many cases national estimates of price increases were used.

The data in this table suggest that use of the Consumer Price Index or Wholesale Price Index could seriously understate the impact of inflation on school budgets. One must exercise caution in interpreting the results of Table 2 since the index concerns inputs not outputs. The index has been constructed as if schools made the same purchases in 1960 as in 1970. In other words, the composition of expenditures (percentage weights) has not changed. As new teaching techniques are found one would expect input substitutions to be made. Our index does not include these. An output index — impact of inflation on the cost of providing *the same unit* of education — would have been preferable but no way was found to quantify a *unit* of education and hold it constant over the period. The number of pupils educated is not a good measure of output for obvious reasons. Also the reader should not interpret the index as a justification of a particular expenditure increase without further investigation into the efficiency of expenditures in the provision of education. One must be reasonably sure that resources are not being wasted. If resources are wasted, improvements in efficiency could overcompensate for price increases and remove the need for expenditure increases. Determining whether or not educational expenditures are efficient is beyond the scope of this project. Additionally, many other factors contribute to expenditure increases. For example, expanded programs and increased numbers of students have been major components in the past decade. The price index only looks at expenditure increases resulting from inflation.

Comparison of Wage Increase

Earlier it was noted that salaries comprised about 56% of the total budget. It follows, therefore, that the wage increases will be important determinants of price increases. One would like to examine the wage increases in more detail. The wage increases for those with either a B.A. or an M.A. over the past decade are presented in Table 3. To the extent that no adjustment was made for productivity changes, the wage increases may be somewhat overstated, i.e., the quality of the teacher may have increased. On the other hand, no correction was made for changes in fringe benefits which would cause an understatement of wage increases.

TABLE 2

ALTERNATIVE PRICE INDICES

1960 = 100.0

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Consumer Price Index ^a	100.0	101.0	102.1	103.4	104.7	106.5	109.6	112.7	117.5	123.8	130.9
Wholesale Price Index ^b	100.0	99.5	99.9	99.6	99.8	100.8	105.2	105.4	108.0	112.2	116.3
Implicit Price Deflator ^c	100.0	103.3	106.9	110.0	112.8	116.6	122.2	128.8	136.6	145.1	154.0
School Management Education Index ^d	100.0	104.6	107.2	110.3	115.2	116.5	117.3	128.0	130.8	146.5	158.4
Illinois Public School Price Index	100.0	101.5	104.8	107.2	109.6	113.7	119.6	127.7	136.9	148.7	160.5

^aEconomic Report of the President, 1971, p. 249.^bIbid, p. 252.^cIbid, p. 201.^dCalculated from School Management issues 1961-1971.

TABLE 3
WAGE AND SALARY INCREASES

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Elementary Schools											
With B.A.	100.0	101.1	103.3	111.0	114.0	115.3	119.5	129.3	141.2	152.4	164.6
With M.A.	100.0	101.7	103.4	110.4	113.2	116.8	121.4	132.3	146.6	161.3	175.7
Secondary Schools											
With B.A.	100.0	100.1	104.9	107.3	107.5	114.3	117.2	127.2	135.8	145.8	162.2
With M.A.	100.1	100.4	108.6	113.7	113.8	121.1	123.2	136.3	147.4	159.0	174.5
Unit Districts											
With B.A.	100.0	102.7	106.4	109.7	113.5	117.3	124.9	144.6	146.0	150.5	174.3
With M.A.	100.0	102.7	106.4	110.2	113.3	118.5	130.6	138.6	152.3	166.4	183.0
Consumer Price Index	100.0	101.0	102.1	103.4	104.7	106.5	109.6	112.7	117.5	123.8	130.9

In the three types of school systems, the wage increases of the M.A. category have been greater percentagewise. There does not appear to have been a substantial difference in the percentage increases in the elementary and secondary school districts for comparable groups. The unit districts seem to have had larger percentage increases, at least for those schools in our sample. The Consumer Price Index, as a broad measure of "the cost of living," has also been included for comparison purposes. As can easily be seen, over the past decade, teachers have experienced salary increases in *real* terms.

Whereas teachers' salaries have increased between 62 and 83% (the annual salary of teachers increased from \$5,264 in 1961 to \$9,261 in 1971), salaries in other professional fields have increased at a slower rate.¹⁵ For example, average salaries of auditors has increased 50.2%, chemists 50.2%, accountants 48.4%, engineers 45.2%, and clerical employees 41.1%.¹⁶ Appendix II provides data on absolute salary averages for selected professional positions.

However, the data in Table 3 must be interpreted very carefully. One must remember the *percentage* increases are being used. If the salary in 1960 was unusually low, a small absolute increase will show up as a large relative increase. The data in the table say nothing about the salaries in *absolute* terms.

SUMMARY

Predicting future education needs and revenue is always difficult. Massive state and federal aid would alleviate the local financing problems considerably. Other forms of taxation or a change in the public attitude toward bond issues could also make a big difference. However, school administrators must continue to obtain as much as possible from each dollar spent. In order to do this, they must plan as effectively as possible. Planning for future budgetary needs must involve anticipated price changes of the goods and services purchased.

Although various indices are published which indicate the impact of price changes on the economy, such indicators may understate the influence of rising prices on educational purchases in Illinois. In periods of tight money in education, miscalculations of such magnitude may have serious effects on attempts to forecast and balance school budgets. It is hoped that this input price index for education inputs purchased in Illinois will help administrators see the past price increases and give them more information for future planning.

REFERENCES

1. "School Finance Survey Shows Nationwide Crisis," **National Civic Review**, May 1971, pp. 286-87.
2. **Ibid.**
3. Walter Blum, Marten Estey, et al., **White-Collar Workers**, (Random House: New York, 1971), p. 135.
4. **Negotiation Research Digest**, N.E.A. Research Division, Ud. 1, No. 1, Washington D.C., September, 1967, p. B-1.
5. This view has been expressed by William C. Baumol, "Macro-economics of Unbalanced Growth: The Anatomy of Urban Crises", **American Economic Review**, June, 1967, pp. 414-26.
6. **National Civic Review**, op-cit.
7. Arnold J. Meltsner, "Local Revenue: A Political Problem," in **Financing the Metropolis: Public Policy in Urban Economics**, ed. by John P. Crecine, (Beverly Hills: Sage Publications, 1970), pp.103-35.
8. One notable exception is the work done by School Management. The January issue of each year is devoted to a discussion of their index based on a national sample of 1500 school districts.
9. These data were provided by the Research Department, Illinois Education Association, for 1960 through 1969. The 1970 data are available through I.E.A. and O.S.P.I.
10. BLS Handbook of Methods for Surveys and Studies, U.S. department of Labor Bulletin No. 1458, p. 70.
11. One estimate for 1965-66 indicates the percentage as 42.5%. See Glenn W. Fisher, "Illinois State Finance: An Appraisal," in **Illinois State and Local Finance**, Final Report and Background Papers, ed. by Glenn W. Fisher, (Urbana: Institute of Government and Public Affairs, 1969), pp. 23-33.
12. The annual value of this index is presented in the January issue of School Management. The techniques employed in constructing this index are described in the January 1969 issue of this journal. This annual issue is a wealth of useful data for school administrators.
13. Illinois is included in region 3 along with Ohio, Indiana, Michigan and Wisconsin.
14. For a discussion of price increases with respect to goods and services purchased by municipalities, see Norman Walzer, "A Price Index for Municipal Purchases," **National Tax Journal**, Vol XXIII, No. 4, (December, 1970), pp. 441-47.
15. "New Profile of the American Public School Teacher," **Today's Education**, May, 1972, p. 17.
16. **National Survey of Professional, Administrative, Technical, and Clerical Pay**, U.S. Department of Labor: Bulletin 1693, June, 1970, p. 3.

APPENDIX I
COMPOSITION OF SAMPLE OF SCHOOL DISTRICTS

	No. in Operation	No. in Sample
Elementary Districts		
Under 1,000 Average Daily Attendance	508	50
High Assessed Valuation		13
Medium Assessed Valuation		24
Low Assessed Valuation		13
1,000-2,999 ADA	126	12
High Assessed Valuation		3
Medium Assessed Valuation		6
Low Assessed Valuation		3
3,000 and over ADA	51	5
High Assessed Valuation		1
Medium Assessed Valuation		3
Low Assessed Valuation		1
Secondary Districts		
Under 1,000 ADA	126	12
High Assessed Valuation		3
Medium Assessed Valuation		6
Low Assessed Valuation		3
1,000-2,999 ADA	40	4
High Assessed Valuation		1
Medium Assessed Valuation		2
Low Assessed Valuation		1
3,000 and over ADA	28	4
High Assessed Valuation		1
Medium Assessed Valuation		2
Low Assessed Valuation		1
Unit School Districts		
Under 1,000 ADA	227	23
High Assessed Valuation		6
Medium Assessed Valuation		11
Low Assessed Valuation		6
1,000-2,999 ADA	126	12
High Assessed Valuation		3
Medium Assessed Valuation		6
Low Assessed Valuation		3
3,000 and over ADA	40	4
High Assessed Valuation		1
Medium Assessed Valuation		2
Low Assessed Valuation		1

Source: O.S.P.I., 1971.

APPENDIX II

AVERAGE MONTHLY SALARIES OF SPECIFIC PROFESSIONAL CLASSIFICATIONS*

Classification	1961	1962	1963	1964	1965	1966	1967 ^a	1968 ^a	1969 ^a	1970	1971
Accountants III	600	618	639	659	677	694	740	790	840	891	949
Auditors III	644	661	687	710	729	742	795	848	901	956	1019
Attorneys IV	967	987	1025	1068	1137	1171	1202	1365	1528	1692	1848
Chemist IV	792	828	854	886	915	954	1012	1070	1128	1185	1253
Engineers IV	832	854	894	918	948	982	1035	1098	1161	1225	1295
Job Analyst III	662	667	685	712	741	786	822	858	894	932	1001
Personnel Dir. II	833	869	890	930	946	990	1051	1112	1173	1236	1327

* Data collected from **Monthly Labor Review**, issues 1961-1971.

^aData for these years was unavailable. The values calculated were derived by subtracting the 1966 level from the 1970 level and dividing the remainder into equal increases for those time periods.

District Power Equalization: An Initial
Effort to Simulate Application to
Illinois Public Schools
(Part I)

Raymond L. Lows
Assistant Professor
Department of Educational Administration
Southern Illinois University - Edwardsville

with assistance of

Orville A Williams
Research Assistant
Department of Educational Administration
Southern Illinois University - Edwardsville

A Report to the Superintendent's
Advisory Committee on School Finance

(May 22, 1972)

The basis for this paper has its origin in the words of Judge Lord of the U.S. District Court for Minnesota: "Plainly put, the rule is that the level of spending for a child's education may not be a function of wealth other than the wealth of the state as a whole" (Van Dusartz v. Hatfield, 1971). Plainly put, the ruling implies, of the three traditional measures of school finance -- expenditure level, effort (tax rate), and ability or wealth (assessed valuation per pupil) -- only expenditure level and effort (tax rate) continue to be sanctioned. A funding scheme using these two measures only has been suggested by Coons, Clune and Sugarman who advanced the proposition that "the quality of public education may not be a function of wealth other than the wealth of the state as a whole" (Coons, Clune and Sugarman, 1971). Since Coons, *et al.*, anticipated the ruling of Judge Lord it would seem prudent to explore the ramifications of applying their proposed funding scheme, known as "district power equalization," to public school districts in Illinois.

The district power equalization scheme requires the specification of a range of permissible tax rates and a range of corresponding permissible expenditure levels per pupil. Regardless of the amount raised by the local tax, the local school district would be entitled to funds such that there is a one-to-one mapping between expenditure level and the tax rate selected by that district. For purposes of illustration, a hypothetical sample set of permissible tax rates with corresponding expenditure levels per pupil is shown in Table I.

TABLE I
Hypothetical Sample Set
of Permissible Tax Rates
and Per Pupil Expenditures

Tax Rate (Per \$100 AV)	Per Pupil Expenditure
\$1.00	\$ 750.00
.	.
.	.
.	.
\$1.25	\$ 850.00
.	.
.	.
.	.
\$1.50	\$ 950.00
.	.
.	.
.	.
\$1.75	\$1050.00
.	.
.	.
.	.
\$2.00	\$1150.00

If a district chooses a tax rate of \$1.50 per \$100 assessed valuation, the per pupil expenditure level *will be* \$950. Conversely, if a district elects to spend \$950 per pupil, the district tax rate *will be* \$1.50 per \$100 assessed valuation.

The purpose of this paper is to explore the feasibility of applying the district power equalization procedure to Illinois public school districts; to develop a computer program to simulate allocations; and to analyze the results of the simulation.

Some Basic Considerations

1. It is sufficient for purposes of examining the effects of converting from the present allocation procedure to district power equalization to use "current operating costs" and "educational tax rate."
2. Conversion from the present allocation procedure to district power equalization should be carried out over a multi-year period.
3. The number of years in transition from the present allocation procedure to full compliance with the district power equalization procedure can be specified, i.e., 5 years.
4. The average annual expected increase in expenditures per pupil during the transition period will probably be of the same order of magnitude as the average annual increase of the immediate past, i.e., 10%.
5. A target expenditure level per pupil can be specified for the first year of the transition period, i.e., \$1200.
6. The amount of variance about the target expenditure level per pupil at the end of the transition period can be specified, i.e., $\pm 5\%$.
7. A target tax rate for the first year of the transition period can be specified, i.e., \$1.50 per \$100 assessed valuation.
8. The amount of variance about the target tax rate at the end of the transition period can be specified, i.e., $\pm 5\%$.
9. The allocation procedure should result in district power equalization across district types as well as within district types.
10. No penalties should attach to separate elementary and secondary school districts.

Derivation of "Equivalent Measures" Across District Types

Since the district power equalization procedure utilizes tax rate and expenditure level, it is necessary to ascertain whether or not equivalent measures for each of the variables can be obtained across district types. For example, the NEFP derived from current practice weights to determine the relative costs of educational programs designed to meet different pupil needs. Pupils in grades 10-12 were assigned a weight of 1.40 compared to a base weight of 1.00 for pupils in basic elementary grades 1-6. Is it possible on the basis of current practice to develop weightings which will enable one to relate per pupil costs in elementary school districts, in high school districts and in unit school districts? If so, can a method be devised to obtain weighted tax rates for each of the three district types to correspond to the appropriate weighted expenditure level?

The procedure which was used to determine weightings to relate expenditures within the three types of districts involved a two-step process. First, the average cost per pupil in a secondary school district was divided by the average cost per pupil in an elementary school district to obtain a value which was assumed to be the cost weighting for a secondary school pupil. The second step of the process was to test the consistency of this weighting within a unit school district frame. Consistency is essential if one is to relate costs in each of the three district types. In Table II is shown the average cost per pupil in each district type for each of three years: 1967-68; 1968-69; 1969-70.

TABLE II

Average Cost Per Pupil
By Type of District

	1967-68	1968-69	1969-70
Elementary	\$622	\$696	\$782
Secondary	\$1043	\$1135	\$1258
Unit	\$733	\$790	\$939

Table III can be derived immediately from Table II by dividing the average cost per pupil in a secondary school district by the average cost per pupil in an elementary school district. The base unit of 1.00 has been assigned for pupils in elementary school districts.

TABLE III
Weights for Elementary and Secondary School Pupils*

	Elementary	Secondary
1967-68	1.00	1.677
1968-69	1.00	1.631
1969-70	1.00	1.609

*At this point in the paper, the values for secondary school pupils are merely the ratios of average cost per pupil in a secondary school district to average cost per pupil in an elementary school district. It shall be demonstrated later in the paper that the weightings are consistent enough to be interpreted as pupil weightings.

In order to test the consistency of weightings within a unit school district situation, it is necessary to obtain estimates of the per cent of all school pupils at the elementary and secondary school level. Estimates were obtained for the unit school districts and for dual school districts.

In the dual school district arrangement the number of pupils in elementary school districts were accumulated and the number of pupils in secondary school districts were accumulated. The ratio of elementary school pupils in elementary school districts to the total number of pupils in dual school district territories gives a measure of the expected per cent of children in grades K-12 which are in the elementary grades. Similarly, the ratio of secondary school pupils in secondary school districts to the total number of pupils in dual districts gives a measure of the expected per cent of children in grades K-12 which are in secondary schools. In Table IV is shown the expected values for 1967-68; 1968-69; and 1969-70.

TABLE IV
Expected Per Cent of Children in Elementary and
Secondary School Levels in Dual District Territory

	1967-68	1968-69	1969-70
Elementary	.71	.71	.71
Secondary	.29	.29	.29

As a check on the stability of the expected values, the number of elementary pupils in unit school districts were accumulated, as well as the number of secondary pupils in unit school districts. In Table V is shown the percent of unit school district pupils which are in grades K-8 and in grades 9-12.

TABLE V
Per Cent of Unit School District Pupils in
Elementary Schools and Secondary Schools

	1967-68	1968-69	1969-70
Elementary	.73	.73	.73
Secondary	.27	.27	.27

Given the expected distribution of pupils at the elementary and secondary school level, one can now test the consistency of the pupil weightings which were presented in Table III. This was accomplished by calculating the cost of educating 100 pupils in a unit school district and by calculating the cost of educating 100 pupils in a dual school district situation.

Using 1967-68 data from Table II, the average cost per pupil in a unit district was \$733. This amount, \$733, times 100 pupils gave a total cost of \$73,300. In the dual district situation one would expect 71 elementary school pupils at \$622 per pupil and 29 secondary school pupils at \$1043 per pupil. The sum of these two products (\$44,162 and \$30,247) is \$74,409. A ratio of unit cost per 100 pupils to dual cost per 100 pupils of .986 was obtained for 1967-68. A ratio of 1.000 would seem to indicate comparability of weightings among the three types of districts. In Table VI is shown the ratios for each of the three years.

TABLE VI
Ratio of Unit Cost Per 100 Pupils
To Dual Cost Per 100 Pupils

1967-68	.986
1968-69	.960
1969-70	1.016

Given the "relative stability" and "relative consistency" of the various measures across time and across district type, one may now assume that the weighting permits comparison of expenditure levels regardless of district type. Thus, one condition of district power equalization has been met.

The second condition of power equalization is that tax rates across district types be comparable. Just as the expenditure side of the ledger was cost weighted for elementary and secondary school pupils so must the revenue side be adjusted. That is, the base tax rate must be adjusted by a factor which represents the expected percent of weighted pupils served by the district type.

Given any point location within the State of Illinois, one of two situations exists:

- (1) A unit school district - one and only one school district which operates and maintains a program for children in grades K-12, or
- (2) A dual school district situation - one and only one elementary school district which operates and maintains a program for children in grades K-8 and one and only one secondary school district which maintains a program for children in grades 9-12.

Therefore, it seems reasonable, assuming no cost differentials for the moment to allocate assessed valuation to district types in direct proportion to the expected percent of children in grades K-12 to be served by the respective district types. A unit district expects to serve 100% of children in grades K-12; an elementary school district expects to serve 71% of children in grades K-12, and a secondary school district expects to serve 29% of children in grades K-12 (refer to Table IV). However, since a weighting for secondary pupils was obtained, it is necessary to allocate assessed valuation to district types in direct proportion to the expected percent of *weighted* children in grades K-12 to be served by the respective district type. As before, a unit school district expects to serve 100% of *weighted* children in grades K-12. The expected percent of *weighted* children to be served by an elementary school district is equal to the expected percent of pupils served by an elementary school district times the weighting factor for elementary pupils divided by the sum of the products of the percent of pupils served by an elementary school district and the weighting factor for elementary pupils, and the percent of pupils served by a secondary school district and the weighting factor for secondary pupils. Using data from 1967-68, the expected percent of pupils served by an elementary school district is equal to $(.71) (1.00) / (.71 \times 1.00 + .29 \times 1.677)$ or .593482. This expected percent of weighted children served by a district may be used as a multiplier for adjusted assessed valuation to district type. In Table VII is shown the values for 1967-68; 1968-69; and 1969-70.

TABLE VII
Expected Per cent of Weighted Pupils
Served by District Type

	Elementary	Secondary	Unit
1967-68	.593	.407	1.00
1968-69	.600	.400	1.00
1969-70	.603	.397	1.00

It should be noted that revenue collected locally at the present time is a product of the tax rate (TR) and the assessed value (AV). Let the expected percent of weighted pupils served by district type be designated by the symbol F. Then in the situation described in this paper the revenue collected locally can be expressed as the product $TR \times (F \times AV)$. Applying the associative law of multiplication $(TR \times F) \times AV$, one can obtain "constant tax rates" across district types. For example, using 1968-69 data a tax rate \$1.00 per \$100 assessed valuation in a unit district is equivalent to a tax rate of \$0.60 per \$100 assessed valuation in an elementary school district, and to a tax rate of \$0.40 per \$100 assessed valuation in a secondary school district.

The district power equalization allocation process utilizes tax rate and expenditure level per pupil. In this section of the paper a conversion factor has been determined which permits calculation of equivalent tax rates across district types (see Table VII) and a conversion factor has been determined which permits calculation of equivalent expenditure levels per weighted pupil across district types (see Table III). Thus, the conditions for the district power equalization allocation procedure have been met.

Cost Projections for State-Local Planning

The present allocation procedure does not require a one-to-one mapping between tax rate and expenditure level. During the transition period to district power equalization the taxpayer must make decisions (or have decisions made for him) to affect a match between tax rate and expenditure levels. The decision the taxpayer makes will affect the amount of money to be derived from state sources. Therefore, it seems advisable to attempt to establish some reasonable upper limit of projected state revenue needs and some reasonable lower limit. If one assumes that taxpayer decisions are constrained by present expenditure levels and present tax rates, strategies for establishing reasonable upper and lower limits can be delineated. By and large, if all taxpayers opt for maintaining or increasing expenditure level, a reasonable upper limit on additional state revenues can be projected. If on the other hand all taxpayers opt for maintaining or lowering tax rates, then a reasonable lower limit for state resources can be projected. Estimates of anticipated state resource needs should reflect the gradual trend to full compliance to district power equalization. This gradual trend will be a function of the number of years in the transition period.

Nine possible mismatch situations seem to exist between expenditure level and tax rate. In addition, two types of taxpayer behavior can be predicted -- tax rate minimizing (expenditure level minimizing) and expenditure level maximizing (tax rate maximizing).

Situation No. 1 The Present district tax rate is greater than the maximum permissible tax rate and the expenditure level is greater than the maximum permissible expenditure level.

Situation No. 2 The present district tax rate is greater than the maximum permissible tax rate and the expenditure level falls within the range of permissible expenditure levels.

Situation No. 3 The present district tax rate is greater than the maximum permissible tax rate and the expenditure level is below the minimum permissible expenditure level.

Situation No. 4 Present tax rate is within range of permissible tax rates and expenditure level is greater than maximum permissible expenditure level.

Situation No. 5 Both tax rate and expenditure level fall within permissible ranges and there is a match between tax rate and expenditure.

Situation No. 6 Both tax rate and expenditure level fall within permissible ranges but there is a mismatch between tax rate and expenditure level.

Situation 6A Present tax rate matches to an expenditure level which is greater than present expenditure level.

Situation 6B Present tax rate matches to an expenditure level which is greater than present expenditure level.

Situation No. 7 Tax rate is within permissible range and expenditure level is below permissible range.

Situation No. 8 Tax rate is below minimum permissible tax rate and expenditure level is greater than maximum permissible expenditure level.

Situation No. 9 Tax rate is below minimum permissible tax rate and expenditure level is within the range of permissible expenditure levels.

Situation No. 10 Tax rate is below minimum permissible tax rate and expenditure level is below minimum permissible expenditure level.

The relationship between present tax rate and expenditure level to permissible values within district power equalization can be shown as in Figure 1.

Figure 1

Relationship of Present Rates and
Expenditures to Future Permissible Values

present expenditure level too high	Situation 1	Situation 4	Situation 8
present expenditure level within range	Situation 2	6B 6A permissible values	Situation 9
present expenditure level to low	Situation 3	Situation 7	Situation 10
	present tax rate too high	present tax rate within range	present tax rate too low

An estimate of a reasonable upper limit of required state resources for each year in the transition period can be obtained by assuming all taxpayers will opt for a maximization of expenditure level. Maximization of expenditure level should be constrained by present tax rates and expenditure levels.

The maximization strategy applied to each situation previously described should permit an estimate of expenditure level for each district during the transition period and an estimate of the tax rate for each district.

Situation No. 1 Decrease cost to maximum permissible expenditure level and accept the associated tax rate.

Situation No. 2 Decrease tax rate to maximum permissible tax rate and affect a match to maximum permissible expenditure level which is greater than present expenditure level (Happiness is . . .).

Situation No. 3 Decrease the tax rate to maximum permissible tax rate and affect a match to maximum expenditure level.

Situation No. 4 Decrease expenditure level to maximum permissible expenditure level and increase tax rate to maximum permissible tax rate.

Situation No. 5 Maintain present expenditure level and present tax rate.

Situation No. 6A Maintain present tax rate and increase expenditure level to affect match.

Situation No. 6B Maintain present expenditure level and increase tax rate to affect match between tax rate and expenditure level.

Situation No. 7 Maintain present tax rate and increase expenditure level to affect match between tax rate and expenditure level.

Situation No. 8 Decrease expenditure level to maximum permissible expenditure level and increase tax to maximum permissible tax rate to affect match.

Situation No. 9 Maintain present expenditure level and increase tax rate to affect match.

Situation No. 10 Increase expenditure to minimum permissible expenditure level and affect tax rate match to minimum permissible tax rate.

The strategies which may be employed by school districts in the various situation assuming an expenditure level maximizing approach is shown in Figure 2.

Figure 2

Compliance Strategies for
Cost Maximization

present expenditure level too high			
present expenditure level within range			
present expenditure level too low			
	present tax rate too high	present tax rate within range	present tax rate too low

Similarly, an estimate of a reasonable lower limit of required state resources for each year in the transition period can be obtained by assuming all taxpayers will opt for a minimization of tax rate. Minimization of tax rate should be constrained by present tax rate and expenditure levels.

The minimization strategy applied to each situation should result as follows:

Situation No. 1 Decrease tax rates to a feasible minimum and accept the associated expenditure level. In this case a feasible minimum might be the maximum allowable tax rate since the present tax rate is greater than the maximum rate.

Situation No. 2 Maintain present expenditure level and affect match to tax rate which is lower than present tax rate (Happiness is ...).

Situation No. 3 Increase expenditure level to minimum permissible expenditure level and affect match to minimum permissible tax rate.

Situation No. 4 Maintain present tax rate and reduce expenditure level to affect match between tax rate and expenditure level.

Situation No. 5 Maintain present tax rate and present expenditure level.

Situation No. 6A Maintain present expenditure level and decrease tax rate to affect match.

Situation No. 6B Maintain present tax rate and reduce expenditure level to affect match between tax rate and expenditure level.

Situation No. 7 Increase expenditure level to minimum permissible expenditure level and decrease tax to minimum permissible tax rate to affect match.

Situation No. 8 Increase tax rate to minimum permissible tax rate and reduce expenditure level to minimum permissible expenditure level to affect match.

Situation No. 9 Increase tax rate to minimum permissible tax rate and reduce expenditure level to minimum permissible expenditure level to affect match.

Situation No. 10 Increase tax rate to minimum permissible tax rate and affect match to minimum permissible expenditure level.

The strategies to minimize tax rate under each of the various situations is presented in Figure 3.

Figure 3

Compliance Strategies for
Tax Rate Minimization
(Cost Minimization)

	↘	↖	↖
present expenditure level within range	→	↘ permissible values ↙	←
present expenditure level to low	↗	↗	↗
	present tax rate too high	present tax rate within range	present tax rate too low

Summary

Based upon current practice weightings have been determined to relate expenditure levels and tax rates across district types. Alternative compliance strategies have been delineated to obtain estimates of reasonable upper and lower limits of revenue need during the transition period.

Part II of this paper will present results from simulation of progression from present allocation procedures to full compliance to district power equalization utilizing concepts presented in this paper.

Memorandum
to
The Superintendent's Advisory Committee
on School Finance

by

William P. McLure

May 22, 1972

The following is a proposed outline of finance models to be prepared by the appropriate departments of the Superintendent's Office. The models will permit the evaluation of various propositions which pertain to the financing of current operating expense* of the public schools. Models for consideration of capital outlay and debt service are excluded.

The writer has had the collaboration of Professors Hickrod and Hubbard in defining these alternatives. In addition, staff members in the OSPI have reviewed the attached data form for collection of data on every district as shown on the memo of April 8, 1972.

Method of Computing Number of Weighted Pupil Instructional Units (WPIU) in each school district. This method utilizes the cost differential norms developed in the National Educational Finance Project. I am proposing that these norms be used in the models as a measure of need to compare with the weightings in the current state aid formula.

The following persons have reviewed the definitions of programs in the above memo and have set up procedures for retrieving the data for our use: Fred Bradshaw, Ken Smith, Fred Rozum, Dave Donald, M. D. Clinton, Roy McDermot, and Donald Eslick.

The following basic data have been chosen for these analyses: 1970 assessments, 1970-71 expenditures and pupil data (best six months weighted average daily attendance--except in some special programs where enrollment data may be necessary).

Alternatives

1. Base Year 1970-71:

- (1) Current practice, using present pupil weightings (WADA) as the measure of program need.

Computations will be prepared and print-outs will show the following data in the order as indicated separately for *unit*, *elementary*, and *high school* districts:

* Note: In all of these models, current expenditures will be defined in the commonly accepted manner with specific exclusions such as the following: transportation; food service; capital outlay and debt service; community services; non-revenue receipts for adult education, summer school, athletics, textbooks, lunches, etc.; summer school, and adult education.

Expenditure Per WADA

A	B	C	D
---	---	---	---

Rank order of districts from highest to lowest on average assessed valuation per weighted pupil unit (WADA).

- A = Local Mandated Contribution from qualifying rate.
 B = State Distributive Aid.
 C = State and Federal Categorical Aids, excluding 874 funds.
 D = Local Leeway Funds.

- (2) Current practice, using the norms of the NEFP program cost differentials for pupil weightings (WPIU).

Computations will be prepared and print-outs will show the following data in the order as indicated separately for *unit*, *elementary*, and *high school* districts:

Expenditure Per WPIU

A	BC	D
---	----	---

Rank order of districts from highest to lowest on average assessed valuation per weighted instructional unit (WPIU).

- A = Local Mandated Contribution from qualifying rate.
 BC = State Aid (general plus state and federal categorical aids, excluding 874 funds).
 D = Local Leeway Funds.

2. Strayer-Haig-Mort:

Alternative A

- (1) Basic Foundation Level -- \$1000 per WPIU
- (2) Local qualifying rate, mandated minimum -- \$1.50/\$100 A.V.
- (3) Full local contribution -- \$2.00/\$100 A.V. (Districts would have incentive to raise local contribution from mandated \$1.50 to \$2.00 and thus increase the foundation from \$750 WADA to \$1000 per WADA.
- (4) Local Leeway above the \$1000 foundation 50 cents/\$100 A.V.
- (5) Save harmless provision for districts receiving no state aid entitlements under this alternative.

Alternative B

Basic Foundation plus Resource Equalizing of Local Leeway to produce an equalized expenditure level of \$1250 per WPIU. For example, any district that levies a rate of \$2.50 would generate sufficient aid to add \$250 per WPIU above the \$1000 foundation (up to \$50,000 A.V. per WPIU).

Other components of this model are the same as **Alternative A**.

Chart I illustrates these alternatives and the components of each, with computations and print-outs applicable to *unit, elementary, and high school* districts.

3. Resource Equalizing Model

$G = r (KAV - DAV) \times WPIU$

$G =$ State grant to district

$r =$ Local tax rate for current expense, ranging from mandated minimum of \$1.50/\$100 A.V. to a maximum of \$2.50 (or some figure perceived to be a reasonable limit on property for operating expense).

$KAV =$ Assessed valuation in the key district, proposed herein as \$50,000 per WPIU.

$DAV =$ Assessed valuation in the district.

Like the previous alternatives this model is designed to start with a mandated local contribution of \$1.50 per \$100 valuation. Any district at the minimum of \$1.50 rate or less than \$2.50 could reach the ultimate of \$1250 per WPIU by increasing its effort to the \$2.50 rate. Districts with less than \$50,000 A.V. per WPIU would have the incentive to increase their expenditure level commensurate with local effort. Thus, except for those districts above \$50,000 A.V. per WPIU, this model would provide a dynamic plan to equalize expenditures upward while also equalizing local tax burden on property (i.e., for education).

Chart II illustrates this model.

4. Full State Funding

Alternative A: Complete State Funding.

This alternative would provide an equal amount of funds to each district per weighted pupil instructional unit. The funds could be obtained, in part, from property tax which could be transferred from local to state government and, in part, from other state collected taxes. The state would levy a uniform property tax rate in all districts. Any funds collected in excess of the designated expenditure would be put in the general fund for distribution to districts of lesser wealth.

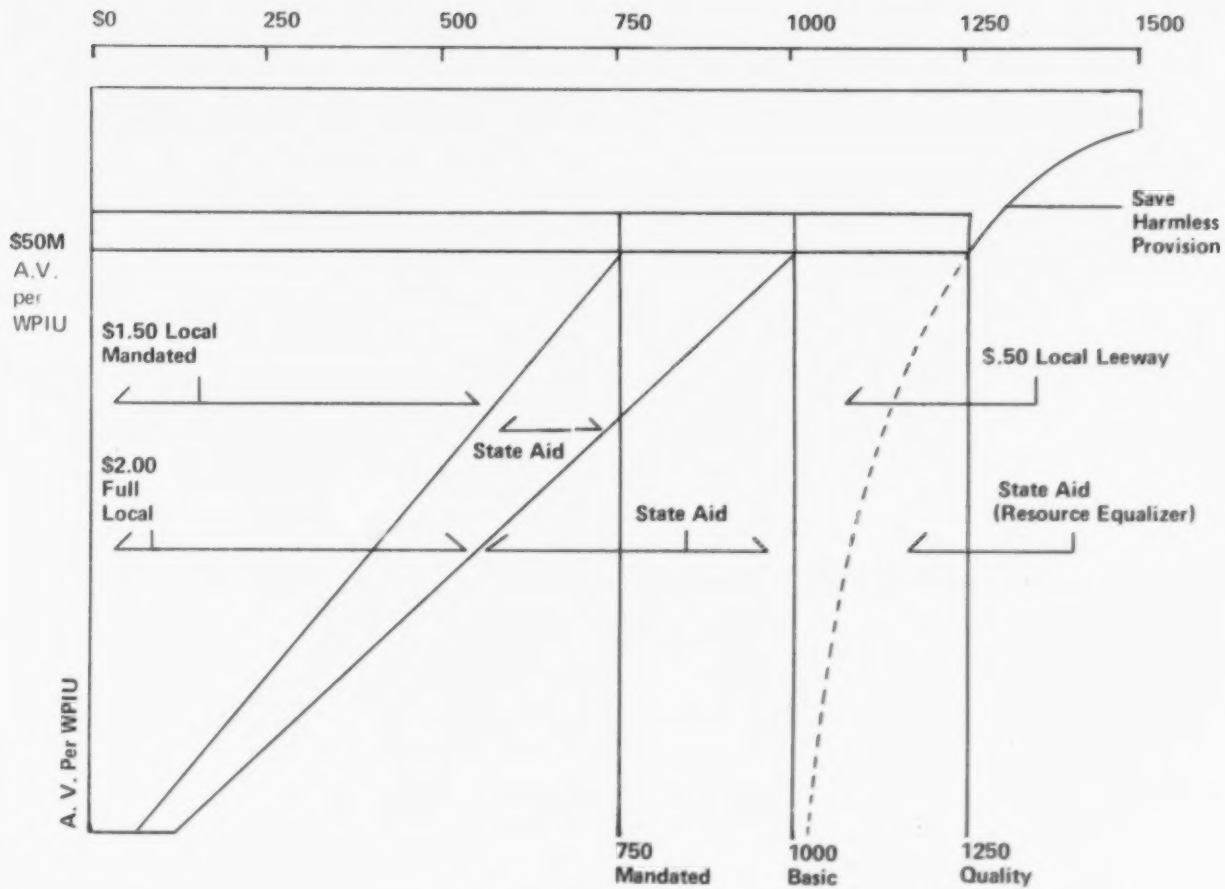
Alternative B: Near Full State Funding.

This alternative would be similar to Alternative A with two exceptions. The state might provide save harmless protection to districts with expenditure above the uniform level, at least until the general level could be brought up to the top prevailing at the time of instituting the plan. Such a provision would avoid some "leveling downward."

In addition the local districts would be allowed a small local tax leeway or "add on" to the state guarantee.

These alternatives are illustrated in Chart III.

Expenditure Per WPIU



Alternative A

Alternative B

Chart I Strayer-Haig-Mort Alternatives

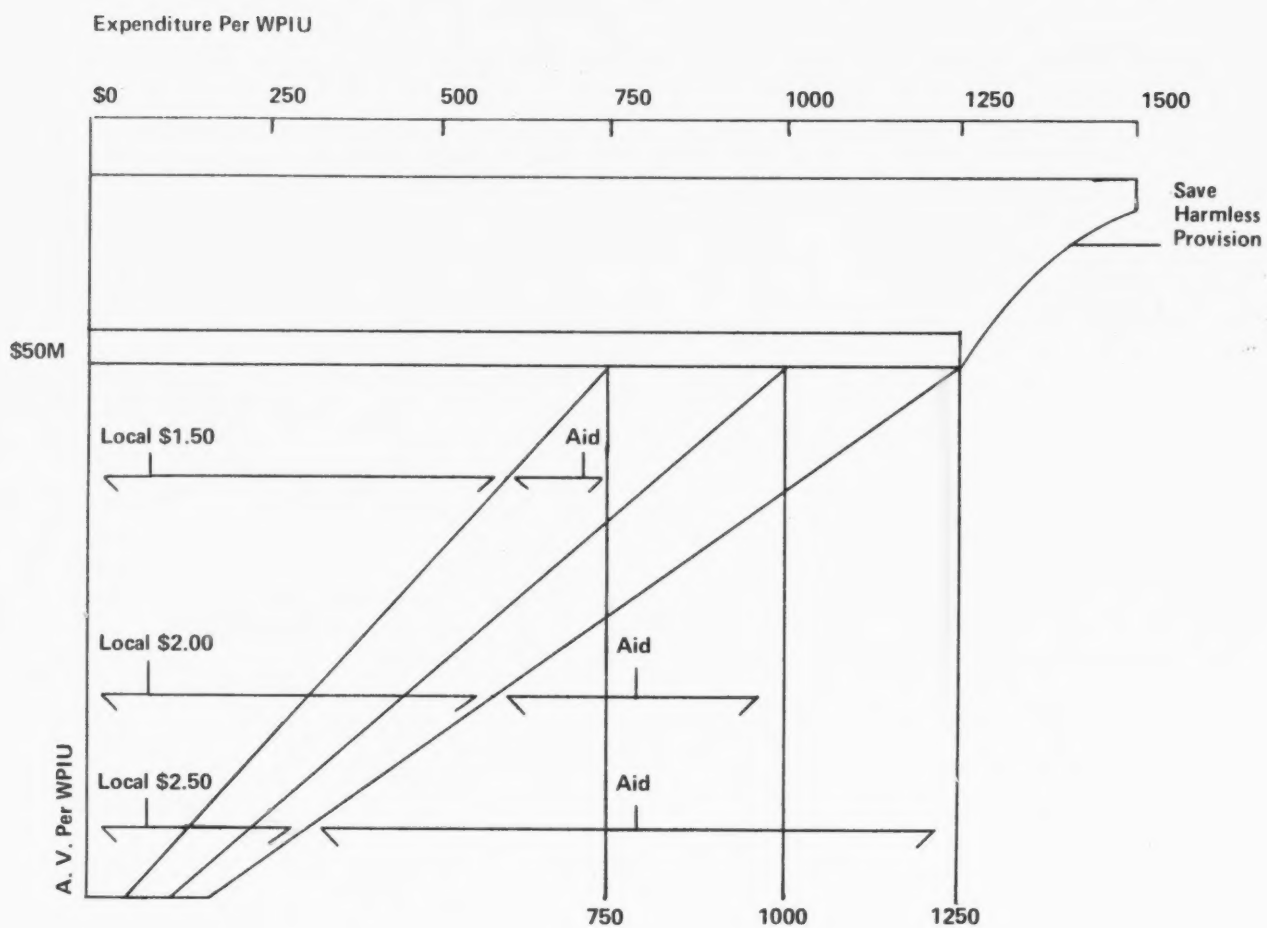
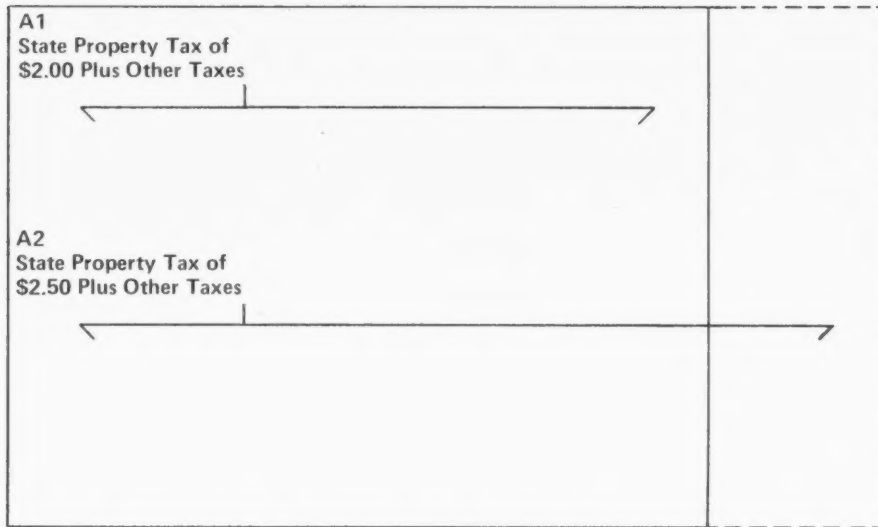
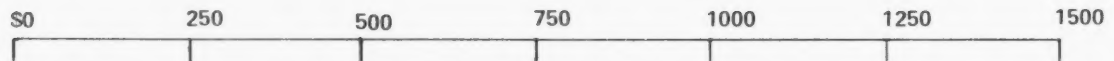


Chart II Resource Equalizing Model

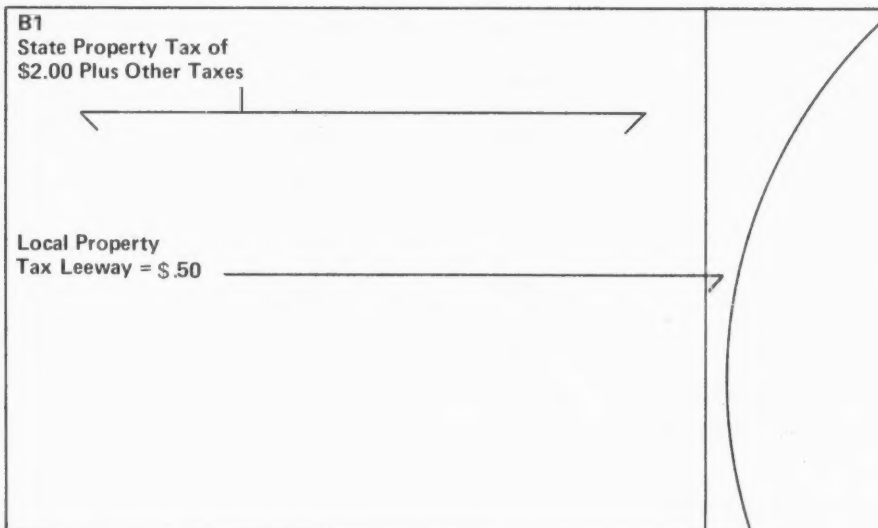
Key District for Equalizing = \$50, 000 A. V. Per WPIU

Expenditure Per WPIU



Alternative A1

Alternative A2



Alternative B1

Alternative B2

Summary

The foregoing alternatives require a consideration of tax equity in dual districts that is comparable to unit districts. To make high school districts comparable to unit districts, multiply either assessed valuation or tax rate by 0.35. To make elementary districts comparable to unit districts, multiply either assessed valuation or tax rate by 0.65.

These factors for comparability represent the respective proportions of WADA pupil units in high school and elementary districts for 1970-71, as follows:

	ADA (Best 6 mo.)	WADA (Best 6 mo.)
High School Districts	261,556	326,944 - 35%
Elementary Districts	<u>600,169</u>	<u>600,169</u> - 65%
Total	861,725	927,113
Unit Districts		
- Grades 9-12	342,078	427,597
- Grades K-8	<u>914,975</u>	<u>914,975</u>
Total	1,257,053	1,342,572

Since the present data banks include assessed valuations and WADA in basic form for each district, it will be convenient to use adjusted tax rates for comparing these alternatives among the three types of districts.

The adjusted rates are as follows:

Current Operating Expense				Capital Outlay	Total
Unit District Value		Dual District Value		@ 50¢ Unit Value	Dual District Value
1.	\$1.50	a.	H.S.	\$.5250	\$.70
		b.	Elem.	.9750	1.30
2.	2.00	a.	H.S.	.70	.8750
		b.	Elem.	1.30	1.6250
3.	2.50	a.	H.S.	.8750	1.05
		b.	Elem.	1.6250	1.95

If the committee approves these alternatives, the next step will be to work with OSPI staff members in preparing detailed computer programs for processing and printing out data.

Propositions and Questions to be Answered

These alternatives are designed to give data for the committee to answer questions of fact and to evaluate propositions in the light of knowledge and judgment.

I shall try to list the major propositions and questions to indicate the objectives of this study as well as additional data that may be needed:

1. What is equalization of educational opportunity? It is the equalization of educational offerings of comparable quality to meet the needs of every individual insofar as the school system can provide. If this is an approximate answer, then
2. What is the best measure of educational need for provision of financial resources to insure the foregoing offerings? For initial estimates the NEFP norms of program cost differentials will be compared with the present weightings in the finance formula. Do we want a parallel study (requiring 6-8 months) to develop norms for Illinois, and at the same time test a procedure for keeping the norms up to date--perhaps on an annual basis?
3. Should the state adopt a policy of only "leveling up" to achieve equalization, or some "leveling up" and some "leveling down"?
4. Should the state adopt a policy of gradualism in working toward the goal of equalization? Or should the state move summarily toward equalization in one or two steps?
5. Should the state set a goal of equalization and establish a plan to achieve the goal within ten years or less based on a consideration of several factors?
6. Since equalization of resources requires reasonable equalization of tax burden, should the property tax be retained and improved (equalized) as one source of support?
7. If the property tax is retained for school support, should it be kept as a local tax? Should it be administered by the state? Should a prescribed rate be administered or mandated by the state and part administered locally? What, if anything, should be done to improve the equalization of property assessments?
8. What constitutes an adequate level of expenditure per instructional unit as a goal for equalization? The highest level at present? What percentile?
9. What are the alternatives for leveling up from the lowest to the established goal for equalization? Local incentive based on a prescribed local property tax burden? Mandated local property tax burden (equalized among districts)? State assumed property tax supplemented by other taxes?
10. What consideration should be given to districts at expenditure levels above the state adopted equalization goal? A freeze (save harmless) until the state goal is moved up equal to the highest? A save harmless that would allow increases for inflation, or use of a small local tax leeway?
11. What criteria would be justifiable for setting the limits of increase for leveling up in any district in one year?
12. By what procedure should the state equalization level be determined? and justification (e.g., from \$750 to \$1,000 to \$1,250 as illustrated)?
13. Should categorical programs be treated separately or included in the equalization measure of need through appropriate weightings? (The proposed alternatives will show comparative data for evaluation.)
14. How much local tax leeway for operating expense should be established as a goal to become operative at a given time (year)?
15. How should capital outlay and debt service be financed? Complete state funding? Near full state funding with local add on of 50 cents tax rate or other amount?
16. What policies and procedures will be necessary to integrate the capital facility program with the operating (educational) program?
17. What procedures should be established for continuous evaluation of educational offerings in relation to expenditures for operation and capital facilities, district organization, administration, instruction, and outcomes?

TO: Members of the Subcommittee on Allocation Systems, Task Force on School Finance, Governor's Commission on the Schools, and Members of the Subcommittee on Grant-in-Aid Formula, State Superintendent's Advisory Committee on School Finance

FROM: G. Alan Hickrod

DATE: June 7, 1972

SUBJECT: Post-Serrano Grant-in-Aid Proposals in Other States

At the request of Chairman Follett, I have put together the attached brief outlines of proposals now under consideration in five states plus the newly adopted law in Minnesota. This in no way constitutes a systematic survey of the very large population of school finance proposals under consideration in the fifty states. It merely happens to be some proposals which individuals in the six states were kind enough to send to me.

This nonrandom sample does show a number of similarities, unfortunately they may be due simply to some bias in the selection process. There appear to be five of these similarities:

1. Most proposals illustrate a "leveling up" by placing more state funds in the poorer districts.
2. Most proposals call for a greater expenditure of state funds due to this "leveling up" process.
3. In all cases some limitations have been placed on the ability of wealthier districts to use their local resources, i.e., "local leeway" has been restricted.
4. Most proposals illustrate a shift in the K-12 tax burden from property taxes to nonproperty taxes, usually a combination of sales and income taxes. A statewide property tax is recommended in many cases.
5. In four of the states reviewed here the "leveling up" process is accomplished by allocating a large bloc grant to all districts *first*, and then proceeding with an equalization formula *above* that bloc grant.

In the terms we have been using in the Governor's subcommittee these are all "institutional" responses to **Serrano**. I have found as yet, few legislative examples of "family choice" or "voucher" systems, although there are a great many *academic* proposals of this nature. I do believe the subcommittees should continue to explore alternatives other than those of the "institutional" variety. In particular, two ideas which have been discussed only briefly seem to me to deserve more investigation. One of these is a *limited purpose voucher* which might be used only for certain subjects or certain services and perhaps offered only to students from poor families. The second is the "aids-in-kind" notion of a Teachers Corps for Illinois. As we discussed the notion at our Chicago meeting, the Teachers Corps, made up of younger recent graduates in teacher education, could be assigned to the poorer districts of the state and their salaries met directly from state sources. I hope that the subcommittees will explore both "aid-in-kind" and "family choice" systems along with the kind of responses suggested in these pages.

State: Minnesota

Source: Office of Governor Wendell R. Anderson

- I. General Description: Minnesota, after extensive legislative debate, elected to stay with its Strayer-Haig or "foundation" grant-in-aid system. However, the constants and variables in the formula were changed to greatly increase the flow of funds to the poorer districts of the state. The most important action of the legislature was to considerably restrict the "local leeway" of the wealthier districts. To my knowledge the courts have not yet reviewed this legislative action, but they may never review it since the plaintiffs in *Van Dusartz vs. Hatfield* appear to be satisfied and may withdraw the suit.

II. Details:

- A. Changed the foundation level from \$404 to \$600 in the first year of the biennium (71-72) and to \$750 in the second year of the biennium (72-73). At the same time the qualifying rate was raised from 20 mills to 30 mills.
- B. Adopted average daily membership in place of average daily attendance and also adopted a 1.5 weighting for AFDC pupils. This results in considerably more funds for urban areas.
- C. Restricted the local property tax rate to the 30 mills specified in the formula. Also restricted any expenditure increase to \$87 per pupil per year.
- D. Districts now levying more than 30 mills are frozen at their current tax rates. Permission to exceed the 30 mill limit may be granted by the Commissioner of Education in cases of districts with extensive outstanding debt.

State: New Jersey

Source: The New Jersey Tax Policy Committee

- I. General Description: This allocation model features full state funding up to a given level of expenditure. The state then continues to share in expenditures through an equalization formula operating up to a ceiling expenditure level. There is no "local leeway" in the usual sense of that term, i.e., *all* expenditures are *either* full state support *or* joint state and local support. No expenditures are totally local support.

II. Details:

- A. Full state funding of a bloc grant set at the average expenditure per pupil in the state.
- B. The bloc grant is to be distributed on the basis of a weighted student (WADA) which includes a weighting for AFDC students similar to Minnesota.
- C. A joint state-local funding continues above the bloc grant based upon the "percentage equalization" grant-in-aid formula now used in New York, Pennsylvania, Rhode Island, Massachusetts, and Vermont. This formula is computed as follows:

$$G = E P_w \left[1 - .5 \frac{V_i}{V_s} \right]$$

Where:

- E = Expenditure level per pupil of district chosen *above* the full state funded bloc grant
- P_w = The number of weighted pupils
- V_i = Property valuation per pupil in the district
- V_s = Property valuation per pupil in the state

- D. Districts already spending one-third more than the state average may be frozen at that expenditure level by action of the state board.
- E. No district spending less than the bloc grant may increase its expenditures more than 20% per year.
- F. Property taxes to support this program shall be limited to a \$1.00 statewide property tax plus whatever local property tax is needed to support the local share of the formula indicated in (C). The effect of this is to shift some of the tax burden for K-12 from the property tax to nonproperty taxes, i.e., income and sales.

State: Wisconsin

Source: Professor Richard A. Rossmiller (University of Wisconsin)

- I. General Description: This allocation model is basically similar to the model proposed by the New Jersey Tax Policy Committee. The only major difference is with the method of equalization above the bloc grant. The method suggested is the so-called "resource equalizer" grant-in-aid used in Wisconsin and New Jersey.

II. Details:

- A. Full state funding of a bloc grant of \$1,000 per pupil.
- B. Distribution of the bloc grant on the basis of WADA.
- C. Equalization *above* the bloc grant by the formula:

$$G = P_w r [(V_g - V_i)]$$

where:

- r = local tax rate *not to exceed 6 mills*
- V_g = guaranteed valuation of \$50,000 per unweighted pupil
- V_i = local valuation per pupil
- P_w = number of weighted pupils

- D. A statewide property tax is also recommended as a part of this plan.

State: Michigan

Source: Office of Governor William G. Milliken

- I. General Description: Governor Milliken's "equal quality state aid for public school act" is of the same species as Professor Rossmiller's proposal for Wisconsin but with one important change. This model would *not* set a single level for a bloc grant or "basic" grant to be distributed throughout the state. Each county or educational service region in Michigan would have a different "basic" level based on the teachers' salaries within that county or service region. It appears to me that a trade-off has been made here. To preserve local collective bargaining, some regional inequality and district inequality has been tolerated.

II. Details:

- A. Each district receives a grant equal to the highest average teacher's salary in its county, times a professional worker-student ratio set at 47 professionals to 1,000 students. Currently this will allow variations of from \$12,427 in Wayne County to \$9,643 in Ontonagon County (upper peninsula).
- B. Adjustments are made for fringe benefits, substitute teachers, etc. An experience-training factor is also used in determining the basic grant. This aspect is probably disequalizing since wealthier districts often have more highly trained teachers and sometimes more experienced teachers.

- C. A nonprofessional salary allowance is granted and a nonsalary flat grant is made.
- D. Steps A through C are fully funded by the state.
- E. The local district may levy up to 6 mills (same limit as in Wisconsin) for "enrichment" and this is equalized in the same manner as suggested by Professor Rossmiller for Wisconsin.
- F. Revenues for this allocation program are to be raised by a combination of a statewide property tax of 26 mills on business valuations (excluding residential and farm valuations) plus a raise in the personal income tax. There has been some talk of substitution of a "value-added" tax in place of the 26 mill business valuation tax.

State: California

Source: The State Board of Education

- I. This somewhat complicated model features a "district power equalization" apparatus which operates over the top of a large bloc grant. It is structured in four stages with the last stage retaining the "local leeway" expenditures unsupported by the state.

II. Details:

- A. Stage No. 1: Bloc grant of \$650 for K-6, \$747 for 7-8, and \$812 for 9-12. Grant is distributed on a weighted student basis with a rather extensive set of weightings representing program cost differentials similar to those proposed by the National Educational Finance Project.
- B. Stage No. 2: Up to expenditure levels of \$725 (K-6), \$834 (7-8), \$912 (9-12), the state participates by an equalization formula of the following form:

$$G = P_w [X Y_g + r V_i]$$

where:

Y_g	=	Guaranteed yield per student. At this stage it is \$2.50 (K-6), \$2.90 (7-8), \$5.00 (9-12) for <i>each cent</i> of permissive tax rate. Rates may be set without referendum to .30 (K-8) and .20 (9-12) <i>beyond</i> the statewide tax of \$2.50.
X	=	Number of cents of permissive tax rate
r	=	local permissive tax rate
V_i	=	local property valuation per student
P_w	=	number of weighted students

- C. Stage No. 3: State participates on the same kind of formula as in Stage No. 2 but at *lower support levels* to ceilings of \$900 (K-6), \$1,035 (7-8), \$1,127 (9-12).
- D. Stage No. 4: Unsupported local expenditures operate above the levels indicated in Stage No. 3. This would not tend to meet the criteria in the *Serrano* case, however, these "local leeway" expenditures *must be voted every year*.
- E. Property taxes to support this program are limited to a \$2.50 statewide tax rate plus the local share of the equalization formulae indicated. As in other proposals, this would shift the tax burden to income and sales.

State: Kansas

Source: Senate Bill 716 - Session of 1972

- I. General Description: This proposal is also a "district power equalization" notion. It differs from the California proposal, however, in two respects. First, there is no large bloc grant operating before the equalization. Second, since Kansas is one of the few states that take income into consideration in determining a district's "wealth," the equalization formula must operate with both income and property valuations in the equation.

II. Details:

- A. District wealth is measured by simply summing district income and district property valuations.
- B. The required local tax effort is made a function of the expenditure level chosen. The tax effort is expressed as a percentage of the district's wealth. The functional relationship is as follows:

$$\frac{X}{1.75\%} = \frac{E_i}{\$875}$$

where:

X = the local tax effort to be determined

E_i = the local expenditure level chosen

- C. The state makes up any deficiency between the expenditure level chosen and the product of the local tax effort (as determined in B) times the district wealth.
- D. Districts which generate more dollars than their budgets by application of the local tax effort must contribute the excess yield to the State Treasury for distribution to less fortunate districts.
- E. No district may spend more than 120% of its previous year's budget.
- F. No district may spend less than \$600.
- G. A statewide property tax of 10 mills shall be levied.
- H. The school districts are authorized to levy a surtax on the state income tax for educational purposes.

PARTICIPANTS

GROUP DISCUSSION – MAY MEETING

ADVISORY COMMITTEE MEMBERS:

Alan Hickrod, Chairman

Fred Bradshaw

Robert Burnham

Leo Cohen

A. James Heins

Charles Hempstead

Ben Hubbard

Raymond Lows

William McLure

Robert Schoepfle

Donald Strong

Franklin Van Buer

OTHERS:

Joseph Domitrz, Assistant Professor of Economics, Western Illinois University

Donald Eslick, Associate Superintendent of Governmental Relations, Office of the Superintendent of Public Instruction

Norman Walzer, Assistant Professor of Economics, Western Illinois University

GROUP DISCUSSION AT THE MAY MEETING OF

THE SUPERINTENDENT'S ADVISORY COMMITTEE OF SCHOOL FINANCE

HICKROD First of all, I would like to introduce two new members of the committee. We have Mr. William Cote, who is joining us from the Illinois Education Association. He also serves on the Governor's Task Force on School Finance. And Dr. Van Buer, who is with Northern Illinois University's Provost Office and Department of Economics.

Two professors from Western Illinois have joined us today. Professor Norman Walzer and Joseph Domitrz have a paper on the rising costs of educational inputs. Gentlemen, the floor is yours.

WALZER The thrust of the paper, as we see it, is to get some idea of the impact of inflation on school budgets. The building of this kind of index is always a problem in that there are things you can't measure and usually a lot of data that you can't get. So let me begin by just considering what the purpose of an index is. We are attempting to measure the increases of certain goods and services, the increases in price over time. There seems to be confusion on this. We are not trying to measure the differences in the cost of something between different locations at the same period of time. We are not talking about interspatial price levels. We are talking about the same goods and services over time. We also are not attempting to find determinates of expenditure increases. We are suggesting in this paper that inflation is one of the factors contributing to expenditures increases. We are not suggesting that it is the major one. We are not developing a test of the impact of inflation or the impact of enrollment increases. One needs to distinguish between the determinant study and the price index.

There are two basic types of indices. One which I think is the most desirable is the output index. Namely, attempting to estimate the impact of inflation on the cost of a unit of education over time. The defining of a unit of education is really tough. The literature is full of attempts. We have gone from the number of pupils to increases in test scores to a variety of methods. The approach that we used in this particular paper was to look at the expenditure increases or the impact of inflation on the expenditure increases of educational purchases. In a nutshell we are saying, "Suppose you bought a certain group of goods or services to produce education in 1960 and you bought that same group in 1970. What, in fact, would have been the increase in prices assuming that you held the group relatively constant."

In the construction of a price index there are two major elements; the expenditure weights and the price relatives. The price relatives are percentage price increases of particular goods or services. These price increases must be weighted by the importance of a particular item in the budget. The importance of each item is the expenditure weight. So we are taking the price increases of a whole series of goods and services. We are weighting them by the relative importance of each group in a budget and summing to get the estimate of inflations. There are several indices available as it turns out, and you might wonder why we need another one. The Consumer Price Index is used primarily by labor unions in attempting to estimate whether real wages have gone up. Consumer Price Index, however, is based on the purchases of about 4,333 urban families of two or more people and 517 single workers. The expenditure pattern of these particular groups are not likely to be similar to the expenditure patterns of school districts. The price increases may in effect be inadequate to represent the inflation on school budgets. In addition, the Consumer Price Index refers to final goods.

- The purchases made by school districts are inputs into a process.

The second major index that is used is the Wholesale Price Index. This index changes other than the retail markets. Once again, the composition or the structure of this index is not such that it adequately depicts the expenditures or price increases for school districts. Once we got into this study, we discovered that School Management magazine has developed a national index. The question was then raised, should we continue or let them handle it? It seemed to us that since the School Management Index was a national index including all 50 states that Illinois may or may not have the same factors. We decided to go ahead. As it turns out, the Illinois Index and the School Management Index are not really that far off.

Our sample was 130 districts for the 1969-70 expenditure period. We subdivided the expenditures into 25 categories which we tried to keep as similar as possible. We also tried to develop the categories so that available price increases from the Consumer Price Index were similar so that we could match an expenditure category with a price index. Our

index uses final year weights. This is going to become important later on because the final year weights have a tendency to give a conservative bias to the index. The base weights of a consumer index have a tendency to overstate the price increases.

The big problem we had, as you might imagine, was trying to control for the increases in productive wages. I might confess, we haven't done that as well as we would have liked. One would have liked, perhaps, to have control for workmen or one would have liked to have control for increases in test scores achieved by students over time or some measure of the productivity of personnel. About the only thing we were able to do was obtain information on the price increases or the wage increases for each educational level. So we can compare, for example, a minimum BA degree in 1960 as a minimum BA degree in 1970. We were able, in short, to control from the level of education. You may or may not agree with this, but this was about the best we could do. We were not able to include fringe benefits. I would guess that there is an overstatement of price increases because of the productivity. I would suggest that it is probably an understatement of it because of the fringe benefits. So maybe it balances off. In terms of this productivity aspect, I am sure you are all aware of much of the literature on this. Much of this work suggests that part of the problem in the cities is the fact that the productivity increases in the public sector have attempted to keep up with the private sector. This has contributed to some of the financial problems, which seems to make sense.

We might also indicate that we are not controlling for the unit of educational output. That is, we have not defined the unit of education output. We are talking about purchasing.

Getting to the results of the study, as you can see in Table 3, in the various indices, the Consumer Price Index increased to 130.9 in 1970. This would suggest that it cost approximately \$131 to buy what \$100 would have bought in 1960. The Public School Index, as we constructed it, was approximately 160.5 for this period. It is almost twice as much. Comparing this with the School Management Index, the number for 1970 was 158.4, which on the one hand reassures us that we are at least in the ballpark but, on the other hand, one is not sure why the school management index ought to be exactly that close. Illinois may differ in expenditure patterns or in wage increases. This gives us an idea of what the impact of inflation has been.

We moved a little in the paper to deal with price increases resulting from wages. This is always a tough analysis because when one talks about the wage increases, one gets into the question of should they or shouldn't they or were they justified. All we have done is demonstrate the percentage of increases for the given education level. I can give you a little more information that is not in the paper in terms of how have the educational wage increases compared to the increases in the private sector. Teacher salaries have gone (this is on the national level) from 62 to 83%. They have increased that much over the past decade and the salaries in the other fields of interest, for example, auditors have increased about 50%, chemist - 50.2%, accountants - 48.4%, engineers - 45%, and clerical workers - 41%. A percentage increase can give you problems in the sense that if the base year was particularly low, then a fairly small absolute increase would, in fact, show up as a fairly large relative increase. One has to treat this with care. The reason we wanted to get into the wage increases of educational personnel was that the personnel component of the educational budget basically is between 55 to 60%. So if there is a large increase in personnel services, then, in fact, there will be a fairly large increase in the price.

The last thing I would mention deals with the major uses of the index. Any price index is subject to a lot of criticism because of productivity problems. It seems to us that percentage use of this index for school administrators would be first in evaluating the current expenditure level. If, for example, you said in 1960, we spent so many dollars per student and in 1970 we spent so many dollars per student, then if there has been an increase you would think there would be more real resources available for education. But if, in fact, you divided through by the price index, you may find that you have actually fewer real resources. The *second major use* is to give a little better insight into planning for future increases. This can cause some problems in the sense that an index can become a self-fulfilling prophecy. If you budget the past price increases into your future requests you may contribute toward expenditure increases. So one has to treat it with care and has to understand what is happening.

BRADSHAW - You referred to your sample districts as having used their budgets. Did you, in fact, use this or some audited figure?

WALZER - We used the one from OSPI and Dr. Bradshaw could probably clarify that in terms of technicalities. It was the annual expenditure report.

DOMITRZ - That's a lot different from budgets because budgets don't mean much in this case. We started out with budgets. We received a survey from the schools and found such a tremendous discrepancy in the ways that the budgets were presented by the schools that we decided that it would be a safer route to go to the annual report.

WALZER - I should suggest our appreciation to OSPI because without this we would have some real problems.

QUESTION - On page 5, Table 2, on the expenditure weights, did you change those for the three-year period that you studied?

WALZER - No, I should have mentioned that this is a fixed weight index.

QUESTION - It would have been changed?

WALZER - It may or may not.

QUESTION - At which point in time?

WALZER - 1969-70. This is a good point. In fact, the composition can change over a long period of time. Whether it changed over ten years is questionable. Certainly it would change over 30 or 40. For example, hospitalization insurance was a very uncommon fringe benefit in 1960 for teachers. It is fairly prevalent now. The alternative to this is to make a variable weighted index, or the chaining process, the splicer and so forth. The Consumer Price Index is built on fixed weights since 1957-1959 and 1967-1969 with adjustments in between.

QUESTION - Which three years did you use to build this one?

WALZER - What we have done is taken 1969-70 and gone backwards to 1960. In other words, if you had bought the same thing in 1960 that you bought in 1970, hopefully, we have indicated what the price change would have been. The alternative is nothing at all.

QUESTION - What is the correlation with the School-Business Management Index?

WALZER - I can give you those figures: 1965 is the mid-period, the School Management Index had 116.5. Our index was 113.7. In 1970, the School Management had a 158.4. We had 160.5. They are remarkably close. It appears that Illinois is fairly close to the national average.

COMMENT - The fact that you are 2% above may indicate that we are well above the mean.

WALZER - The results published in tax journals and other places dealing with municipal price increases and the public service side of it seem to be remarkably higher. The reason is because of the service orientation. It is a different ball game because teachers are now willing to bargain and strike. Wage increases are changing.

QUESTION - You listed some other occupations and you talked about their relative progress and you talked about education. Did you see any point at which the two began to cross out so you could predict a different kind of plateauing than we see here?

WALZER - On the other occupations it was just a trend line. For education, in terms of the salaries, we used absolute amounts.

COMMENT - What I was suggesting was that perhaps if you make an assumption of a significant variance at the starting point that, you might get a much more significant rise in education and the ultimate trend line might be much more strongly correlated to the merger than the present trend.

WALZER - To the extent that we are using 1960 as a base year in both cases. We didn't test that particular theory.

DOMITRZ - I think that the one important value of this is that too often in the public schools the tendency is to use the Consumer Price Index because it is so popular. But you are looking at the Consumer Price Index which is increasing at a rate of about 30% when the actual inflation that is taking place in the public school sector is what we are finding pretty close to 60% or double that. I think this is one problem that administrators should be aware of and that is that they may be understating the impact of inflation when they are trying to plan ahead.

HICKROD - Professor Burnham's Presentation will be next.

BURNHAM - It is rather easy to summarize the status of Capital Financing in Illinois because it is primarily a local responsibility. I guess I could say that during this current school year, 90 to 95% of the financing of capital facilities will be local, through local general obligations, bond issues, and the Building Fund. The breakdown for local financing: in 1969-70, about 1/3 of the expenditures were covered out of the Building Fund and 2/3 out of the Site and Construction Fund. The local financing of facilities will probably follow that same pattern in the future which really means bonds. In 1969-70, the costs to local districts was 244 million dollars - it's that amount of money we are talking about in total - 2/3 of which is long-term debt out of general obligation bonds.

In terms of the state's share, it comes from two sources. First, the School Building Commission. This year we will put about 10% of that amount into facilities that they are providing money for construction for local districts. Of course, that is advertised as rent. Rental money is paid to the School Building Commission by local districts. Second, there is a minor amount involved through state grant moneys for special education facilities but it is relatively minor.

In terms of where we are going for capital outlay needs, Table 8 is an attempt to do a straight-line projection of capital outlay and bond retirement in relation to total operating expenditures. Historically, this has been one way to get a handle on capital outlay needs. I am sure the economists are sitting there just shuddering at the idea of straight-line projections. I think the table is self-explanatory. The total operating expenditures over the full 19 years indicates a 10.96 annual increase and that's just projected over the next 5 years.

During the early fifties, capital outlays were running around 25% of total operating expenditures. That was averaged over the ten recent years to come up with the 15% figure of capital outlay, with bond retirements running about 7% over the recent 10 years. This is not a very accurate way of determining the needs for capital facilities. It gives us a ball park picture of what capital outlay will likely represent in the near future. We are talking in terms of about 15% of the total operating expenditure picture. It is a relatively minor part, in that sense, but it is a fairly important part to the school districts, particularly those still in growing areas or those still in high need of replacement.

HEINS - Bob, I have a question. I think this is rough and ready. The problem I see is how we are going to use these data. For example, Champaign is a fairly typical area in terms of growth. Projected enrollment for Champaign is down from 7,000 to 5,000. These are, of course, just rough figures. There are more projected school closings. I am sure that this is a phenomenon going on around the state simply because enrollments are going down. It seems to me that there should be some way to determine capital needs by looking at the districts and projecting the extent to which the old buildings are going to be closed down in the next five years as the school districts consolidate. That is going to have a lot to do with the capital needs. I am hard pressed to imagine Champaign building any new schools when, in fact, they are closing down old ones. I think if you look at the trend we went down from 27% of total expenses in 1953 to 12% in 1969. Wouldn't a better ball park estimate be to simply continue that trend down to 10, 9, 8, 7, and so on, and then figure out what the capital expenditures are rather than taking this average of 15%?

BURNHAM - Because of these problems, Valley View District is projecting doubling its size in the next five years, at the same time other districts are talking about retrenchment and cutting back. This kind of information is only marginally useful and for that reason the subcommittee decided that we must survey local school districts and find out more accurately what their needs are. The Capital Assistance Subcommittee has developed a questionnaire to go out to school districts to gather, in a systematic way, information about their needs both in terms of projection of pupils and facility replacements.

ESLICK - There are a lot of other factors that Jim is omitting that have to be thought about. One is that the student population throughout the state is not decreasing nor do the projections show a decrease. It shows almost a leveling off, but in spite of that you have a lot of relocation - shifting in the suburban areas, a decline of some of the urban areas. This would create that kind of thing, Jim, but there are other areas that have needs even though they have a constant population. In addition, I think the figures that you will collect will indicate a lot of unmet needs and part of the unmet needs, in recent years, have been the result of the inability of the district to sell their bond referenda to their local populace. The supply of funds has been so curtailed that the demands for facilities cannot have possibly been met. I don't think it is all reflected in a downward trend. It is likely to continue.

HEINS - Don, I would respond to that by saying I was not aware that there was simply a leveling off. I thought that there was a projected downtrend in school enrollments in the next twenty years but beyond that I recognize, of course, that there are relocations and even with the constant population and with no new acquisitions, in balance, that there are going to be some capital expenditures because of relocation. Some areas are going to be closing down schools and

others are going to be adding, not because of total population growth but because people are moving. It strikes me that that is not going to account for these kinds of figures that we have here. The main purpose here is to distinguish between growth that simply keeps up the state of affairs and talking about growth that reflects unmet needs or some notion we have about improving the quality of education in the state. I think it is very important that we distinguish between those two and that we don't muddy the waters by lumping them together into one figure. Let us recognize that when we are talking about improving the quality of our schools by building better school buildings and when we are keeping up with the present state of affairs because of relocation and enrollment increases.

BURNHAM - What Dr. Heins is asking, in my mind, is an empirical question and we need the evidence to answer that question and that is what the subcommittee is about and what people are working with in the OSPI are all about. I think we need that kind of information before we go to the Legislature and talk about additional money.

ESLICK - Let me say one thing in terms of the population. The data that we have indicates that statewide, the average daily attendance has been increasing at a decreasing rate. The most recent year that we have data for indicates an increase in total student population of around 15,000 in the public schools. All of the earlier increases were greater than that. A goodly portion of that difference was a result of the closing of nonpublic schools which seems to have tapered off. That, of course, may change again very soon and there are over 400,000 pupils in nonpublic schools. The projections I have seen through 1980 indicate we will see a small increase.

COHEN - I think you do need this broken down. I know a few school districts where they have some real problems in terms of class size. They are picking up new rooms but class size is not decreasing. A lot of classrooms are left empty because they don't have teachers to put in them. Also, that 15.1 bothers me. Is that a reasonable figure to use or is that what we would *like* to have to meet all these unmet needs? To ask it another way, if you were to go back to any point in time, five years or ten and predict forward, could you have done anything in using that kind of methodology in terms of predicting capital outlay?

McLURE - These figures are not even as useful as the trail of a jet airplane, and far less useful than these indices which are used by projections. By looking back at the jet stream, we see which way to go. That's the way we use them. What's missing here, as Bob said, this doesn't tell us anything about the extent to which the state met the needs. We have to accept that fact and just look at these figures as a response of nothing more than what the state did over these twenty years. I think we ought to continue breaking up these data in relation to operating expenses because we do have some studies which attempt to define measures of need and relate them to the operating expenses in a sample of districts. We find this is a very useful way of relating it, but we really don't know. We see one thing during those postwar years that must have been and we can infer. I think the inferences are pretty good when you use other knowledge. During the 1950's the state had a tremendous backlog of needs, obsolescent buildings, and the figures reflect that. Somewhere along the way they began to think that maybe they had done a pretty good job and there you see the tapering off. I think that if the committee could come up with an empirical study defining some measure of needs in relation to modern and foreseeable educational program requirements and relating those estimates to operating expenses, we will begin to get some criterion that will be useful.

COHEN - You haven't said anything to show me or convince me that it has any real relationship to operating expenses or why it should.

BURNHAM - We know that there is a danger of relating capital expenditures to operating expenditures. We know, for example, that in the 1950's teachers' salaries were much lower than now. Our operating expenses at that point in time were biased compared to now - biased downward. We also know that over the 1930's and through the war we had next to no capital expenditures. We will get lumping at that period. We can find so many periods of time in which it is very dangerous to relate capital expenditures to operating expenditures.

McLURE - You are talking about average practice. We are talking about two different things. If you go in with a measure of reasonable adequacy of buildings and relate them to operating expenses over time, there is a relationship. I can demonstrate it with some empirical studies that have been made. I think in terms of what we know and what we have postulated about capital facilities that, there is a relationship but we don't have the evidence to argue with you on that point right now.

BURNHAM - This is really meant to be provocative in the sense that Leo and Jim have come in on it. We are serious about getting the empirical evidence. Everything you are saying reinforces that because we have had some other problems in getting this thing rolling as far as collecting the empirical data.

VAN BUER - I would support going after more empirical data on capital expenditures. I know in my own school district even though we can project a downturn in our school population, we have some backlog needs in capital expenditures. We have three schools that don't meet the needs of our education program. The next several years will be very difficult years in this school district because we can't put off building these buildings any longer. Even with a constant school population or even with a downtrend we still must consider buildings when we talk about quality education.

QUESTION - Bob, does your paper contain any information relative to the studies that Bill was referring to?

BURNHAM - No, but the next phase will. I thought it might help if we heard some implications.

HUBBARD - I think you need to know that more than \$200 million was made available to the city of Chicago in the last legislative session. So in terms of talking about whether a building is going to be there or not Chicago is going to make up at least 1/5 of it which is besides their normal expenditures. We are talking about substantial expenditures. There is going to be that kind of money spent in Illinois, whether the state participates or not.

STRONG - As long as you are going to ask people in the state, you have to get down to a specific situation, giving some sort of base line on which to make a decision. What is a common starting point? In some cases it is going to be adequacy, in other cases it is going to be growth. There are a lot of reasons but you have to start with a theory or a goal and measure that and then start from there. Some of it is just going to be estimate. I don't think we can get much closer.

BURNHAM - In fact, Dr. Strong, in addition to getting those estimates, we plan to follow up samples to validate the information to reinforce it. Also, Dr. Hubbard, your point on Chicago is appropriate. The appendix in the paper includes a summary of Chicago school rehabilitation cost estimates, running \$300 million and then the \$200 million in bonding capacity now to carry out that rehabilitation.

HEMPSTEAD - Bob, you mentioned that there's some special education building money there which is rather insignificant as far as the total is concerned. Did you also include the vocational money that is used for building purposes or did you consider that?

BURNHAM - I did not, but I think that this is something that should be looked into because these moneys are available every year to help with construction.

HICKROD - Bob, your committee may be interested in the fact that the State of Maryland has adopted full state funding for capital financing. There have been some very interesting ramifications after that. That transition from partial state funding to full state funding would, I think, be of considerable interest to you.

HEINS - Well, that gets to the heart of one of the very substantive issues we are talking about and we'll have to come to grips with it before we can file the final report and make a recommendation to the State of Illinois about how to finance the schools and that is the kind of restrictions we are going to create - between spending for capital purposes and spending for operating purposes. The substantive question here is how you design a state program that is going to award so much money to the various school districts for various types of purposes and how we decide which districts get more or less capital expenditures and which districts get more or less operating expenditures and then, of course, admitting there are other breakdowns that we might develop beyond simple operating and capital expenditures. I, for one, will express right here a feeling on my part that the greater leeway that we can accord in this program, or as we design it, to the school districts for themselves whether their needs are best met by hiring better teachers or more teachers or whether fancier classrooms or equipment or whatever they view to be in the interest of their own students, the better system we are going to have. So long as these data are used for some kind of rough estimate about likely expenditures in the future, the kinds of moneys we are talking about, so we can talk about raising revenue to meet those kinds of needs, that's one thing, but when we use them for purposes of program design and between moneys that might be awarded for these two purposes, I know Bob doesn't have that in mind but some of the rest of us might, then we have to be more careful.

HICKROD - Furthering that point there is considerable discussion and this is just a point for debate - as the **Serrano-Rodriguez** decision cuts down on the local option for current expenditures that it would be a good idea to leave considerable option on the capital side for the locality. That, of course, assumes that the court will side favorably in **Serrano-Rodriguez**, which is quite an assumption.

QUESTION - Alan, did you say that Maryland has formally adopted full state funding for all districts?

HICKROD - Capital only, how about it bill, that is my understanding.

McLURE - They haven't adopted the **Serrano-Rodriguez** response yet. They had three bills in the legislature and all of them didn't get through.

HEINS - Does that mean when a school district wants to build a building they have to go to the state and win their approval to build that building? Is that what full state funding of capital expenditures means?

HICKROD - There are only 24 districts in Maryland so it is not the operational nightmare it might be in Illinois. When they had the state and local sharing in the facilities, they had to get state approval for the cost allowance for which the state would contribute. This is not only true of Maryland, it is true in about a third of the states.

BURNHAM - In Illinois, to categorize the school buildings in this state from districts of about the 60th percentile and downward they look very much alike. It's only when you get in the very top wealthy districts that you find these extra facilities that the other districts would like to have but simply don't have the money to fund. I think that if we could do one thing in this committee, it is to develop a reasonably good measure of what constitutes an adequate school plant design and equipment with it - in relation to modern educational programs - and then make some estimates for the whole state. This, I think, would be a real contribution. I think that Jim made a point that is very important from an operational standpoint - deciding locally. Most local decisions have been tempered to the fiscal whims, as you well know. They've cut corners simply because they didn't have the money and people adjust to these things. There are many teachers who are happy with nothing to work with simply because they know it's impossible to get more and they reconcile themselves to it. I say there is a very important relationship between adequate facilities and what teachers, in general, can do and will do. I think we ought to keep this in mind.

HICKROD - Now we go to Dr. Lows on the District Power Equalizer. The last couple of weeks all I could hear out in California was District Power Equalizer and every time somebody would talk about it, they defined it in a different way. I've been looking forward to this.

LOWS - I suppose I should say that I'm confused by District Power Equalization, too, particularly when you have a system in operation and try to make a transition to District Power Equalization. If we didn't have a series of districts in operation the problem would be rather simple. What I propose to do in this part of the paper is to outline some assumptions and try to describe the model that I am using to simulate some results for the next time we meet. I'll go through this by pointing out some of my concerns.

Some of my concerns relate to the trapezoid and the triangles and the circles and the three different types of districts. What I wanted to do was to say why district power equalization across district types rather than within districts which I think is the present way of operating. Secondly, I needed some quick data so I've used current operating expenses, realizing the limitations of that, and I've used the Educational Fund tax rate to look at the situation.

The district power equalization scheme is presented on page 2 of the paper. This is simply a matching of a given tax rate to an expenditure level and there is a maximum tax rate specified, a minimum tax rate specified, a minimum expenditure specified, and a maximum expenditure level specified. All that we have to do now is try to work out some kind of procedure that will map a particular tax rate onto a particular expenditure level and so I had to make certain assumptions. The first assumption is that which I just mentioned - the use of current operating expenses. Also, I used the Educational Fund tax rate and was content to look at that and see the other possible implications. Bill McLure pointed out that this ought to take place over a period of time, so I devised a model to permit specification of the time interval you desire - 5, 10, 15 years. I've also made provision in the model for an average increase in expenditures. Or, if you can tell me what you estimate the expenditure increase to be, I can plug in that value. I should also be able to specify a target expenditures level at the first year of transition and so I can inflate that value, depending upon the particular increases for that year. I think the average for 1969-70 was \$782 for elementary school districts. There should be some variance about that target expenditure level, whether it's 5% above, 5% below, you specify. I really don't want to get into specifying that value. There ought to be some target tax rate for the first year of transition, and I said, for example, \$1.50 per \$100 assessed valuation. I think if we went to a statewide property tax using the 1969-70 data and said that we would like to have a tax rate that would just return the total amount of money that was raised from local property tax for 1969-70 it would be around \$2.04. We should also have some variance about that target tax

rate. It could be plus or minus 5%. The variance about the tax rate and the variance about the expenditure level do not have to be the same, although they can be. You can increase the trend of one over the other.

Across the district types, I have assumed that there are no penalties of taxing a separate elementary and secondary school district. That is a gross assumption but it had to be made. That can be changed very easily. If I have a target expenditure level for an elementary school district, I want the equivalent expenditure level for a high school district or a unit district. Likewise, if I have a specified target tax rate for a unit district I want to talk about the equivalent terms for the other types of districts.

One of the first things I had to do was to find equivalent measures across district types. What I've done now is to take the average costs per pupil by size of district for each of three years, 1967-68, 1968-69, 1969-70. I used the data from OSPI, kicking out certain districts for which data were missing. We were working for consistent data all the way across so we threw those out and this will reflect that elimination. If you then take the average cost per pupil in a secondary school district, you've got a measure of weight for elementary-secondary school pupils because all I've really done is compared the cost in the different types of districts. Now, as I go along, I will check that to make sure that it is consistent. I'm working on the basis of actual data rather than on what I would like to see or on what ought to be. To test that, we would have to equate the percentage of weighted pupils served by an elementary or secondary or unit district and, in a sense, a unit district serves all of the people in that territory. We could say that's 100%. If you sum up the number of children in elementary districts and sum up the number of children in secondary districts and then find the respective ratio, you will find that it's relatively constant for 1967 and 1968 at 71% for the elementary. There's a little different ratio in the unit district. Seventy-three percent of the pupils in the unit district are in elementary schools for each of those years, based upon the data that I used.

QUESTION - Did you include Chicago in your unit district? Yes. Then your average is really determined greatly by Chicago.

LOWS - Yes, but I can kick those out and run it again.

QUESTION - You made the assumption on this year. Which year is the hard data - 1967? Did you generalize for the other years?

LOWS - No, over three years, it came out the same each year. On page 6, I said that we had weights for elementary-secondary school pupils and I pointed out the limitations there. But if I find this consistent within unit district types, then I might remove my limitations there. The way I could do that was to figure out what the costs would be to provide a program for 100 pupils in a unit district setting, 100 pupils in a dual district setting, and then divide that ratio. If it came out to be relatively close to 1, I could assume it was relatively constant. If you look on page 8, we took the average cost for 1967-68 in unit districts as \$733, that gives us \$73,000 for 100 pupils. In a dual district situation, 71 pupils at \$622 and 29 pupils at \$1043 gave us a total of \$74,409. The ratio is in Table 6. It came out to .986, .960, and 1. Whether you want to argue that or not, it seems relatively close as far as I'm concerned, at this point. If that's the situation, now I can go back and talk about actual weighting.

Basically, secondary students are roughly around 1.6. I have a cost adjusted measure for the expenditures side but I have to adjust the tax rate so that it will be equivalent. That is a relatively simple operation because I have a given piece of territory. Let's assume a point, there is only one unit district operating there or there is only one elementary and only one high school. I'm interested in providing a program for Grades K-12. It seems to me I can just divide that assessed valuation in that point territory, based upon the weighted percentage of pupils served.

QUESTION - Are you using the weightings of the expenditures, 1.67 for example?

LOWS - Yes. So, if you then relate the assessed valuation to the percentage of weighted pupils served by district type - (page 10), an elementary district can expect to serve about 60% of the weighted pupils, secondary district, about 40%, and the unit district, 100%. Running through the example on the middle of page 10, using 1967-68 data, the expected percentage of pupils served by elementary districts is equal to .71 which is the number of pupils in an elementary district, times 1, (the cost of weighting) - the percent of pupils times the cost of weighting - divided by that whole quantity which is the percent of pupils in an elementary district, times the cost of weighting for elementary pupils, plus the percent of pupils in a high school district, times the weighting for high school pupils. That equals, roughly, .6.

QUESTION - So you were working with the original data, with actual ADA, no weighting of 1.25?

LOWS - I did not use the 1.25. I was working on the basis of actual data. It was fairly consistent over the three consecutive years. Instead of taking the .6 and multiplying it by the assessed evaluation, I can take .6 and multiply it by the tax rate to get a cost adjusted tax ratio.

COMMENT - When you shift to weighted pupils on page 9, your weighting is based on your ratio of expenditures for ADA, so you come out with a 60-40 difference, and I come out with 65-35 difference, using the 1.25.

LOWS - You see I'm talking on what the data said, what actually happened. Not what ought to happen. On the basis of actual data, you come up with this measure. You can multiply that factor on page 10, times the tax rate for unit district is equivalent tax rate across district types and if you use the 1968-69 data, the tax rate of a dollar per \$100 assessed valuation in a unit district is equivalent to a tax rate of \$.60 per \$100 assessed valuation in an elementary district and a tax rate of \$.40 per \$100 assessed valuation in a secondary district. Now we've got equivalent tax rates with equivalent expenditure levels so we've met the conditions of power equalization in terms of better taxes instead of expenditures.

We still have a problem of trying to get from where we are now to where we ought to be under district power equalization. I know about how much we are expending now. I would like to try to get some idea of what kind of ball park we will be playing in within the next transition period and I would like to move at a certain rate. You can specify the rate.

There are some mismatched situations that occur between expenditure and tax rate. On page 14, I tried to specify these. For example, in the middle of the Figure 1, you have a line drawn with permissible values. These are the only tax rates and expenditure levels that are permitted. You can pick one of those, as long as it is along that line. If I specify now, along the top to bottom, we have a situation where the present expenditure level could be too high in terms of the expenditure level we have. The present expenditure level could be within the range that we have specified, or the present expenditure level could be too low. Across the bottom of the page, we have a situation where the present tax rate could be too high, the present tax rate within the range, and the present tax rate could be too low. Those situations exist and you might decide how to deal with each one of those situations if you go to a power equalization. If you have a choice regarding tax rate or expenditure level, he might choose the strategy that would maximize the expenditure level, or he could choose the strategy that would minimize the tax rate. If we talk about every school district choosing a strategy that would maximize the expenditure level, we would get an upper level. If we choose the strategy where everybody takes a break in terms of reduced taxes, we would get the lower level. All we have to do is specify what would happen in each one of these situations. For example, Situation Number 8 is the one the politicians would be concerned about. Situation Number 8 is where the present expenditure level is too high and the present tax rate is too low. This means we would have to raise taxes and reduce the expenditure level. What I would like to do is pick a set of expenditure levels and a set of tax rates so that no one is in situation Number 8. If I do this, I've avoided a lot of conflicts, to say the least.

The rest of the paper simply deals with the interactions for those situations. What I hope to do for next time is give you an indication of given, certain, target expenditure levels and certain target tax rates - how many people would fall into each one of these categories and what kind of expenditures level we're talking about in the next few years. Based upon the initial run, the additional amount of revenue that we are going to need is going to keep these economists rather busy.

COMMENT - I assume that would include some sort of weighting in terms of number of pupils or what-have-you so that you won't just come up with X number of districts.

LOWS - If you want, I'll give you a count by the number of districts in each category, the number of pupils in each category, and turn out a correlation for each year along the process so you can see how it's going.

QUESTION - You took no weighting other than the actual difference in costs now? For instance, there is no weighting to take care of the Title I eligibles or Special Education or any of these things? It's an average across the board.

LOWS - Yes.

STRONG - I think the thing that's most appealing to me is, first, it gives me a fairly rational basis for understanding power equalization. You didn't put in any political variable. You took the constitutional assumption, my constitutional assumption, that the state doesn't have the right to discriminate on the basis of district types, which would be my bias.

It also takes into account equal access, as well as equal expenditures rates. Now from that point on, you've got a foundation and you can do anything you want with a foundation. You can put on all the weights or add-ons or subtract them.

HEMPSTEAD - We did finish, not long ago, an update of the efforts and abilities studies which will show you quite well the difference in these things that we are talking about - the expenditures and tax rates.

LOWS - The weighting factor brings up an interesting question that I ran into as far as what ought to be as to what will. If we're talking about going to a weighting system, we'll have various types of difficulties. If we have alternative means of delivering education there's no provisions for shifting funds to different purposes.

COMMENT - If you assume your ADA is a comparable unit of measurement, then I think that there's a great deal of difficulty.

McLURE - Later, I want to talk about the fact that the ADA is NOT a comparable unit of measuring. I think your approach could be plugged in with a weighting unit which is more comparable than the ADA.

COMMENT - To get this clear in my mind, you found that the average per capita expenditure for high school students in dual districts was 67% higher than the average per capita expenditure in dual elementary? Right. And then you found that partitioning of the unit district, according to the ADA percentage in unit district, resulted in approximately the same total average per capita expenditures, is that right?

LOWS - Yes, that is right. That's an average figure. There is some variation.

STRONG - We should try to get at the actual expenditures. Maybe we could do it on a sample basis in unit districts - to try to get at the actual expenditures of high school and elementary in a unit district. Did you do that?

LOWS - We've done that in some of the smaller districts. It was interesting to see what happens. The statistical fact is irrefutable but it would be interesting to know that as well because that 67% sounds pretty high relative to a lot of the other things.

HEMPSTEAD - If you'll let me correct it, I think the two unit districts we ran this on almost verified his exact figures. It seems to me it came out 1.6 - they were spending over and above the elementary although they may not be typical districts.

COMMENT - Ray, are you trying to eliminate that Robin Hood principle out of the power equalizing proposal?

LOWS - What do you mean by Robin Hood?

COMMENT - The situation in which wealthy districts generate more money than poor districts and therefore kick back into a statewide pool.

LOWS - Well, I used \$2.05 which would be roughly the figure on the educational tax rate for 1969-70 that we would need. If you talk about \$1.30 or \$1.50 tax rate, you don't have too much money coming in. You also would lose a lot of revenue. So you have to talk about a situation where if you want to consider district power equalization, you keep as much as possible of the revenue you've been accustomed to so as not to alienate any more people than you have to. You can play with that value.

COHEN - It seems to me that the only question you're raising is how much you will use this source of revenue in terms of whatever it is you're going to do. For example, you could have very little effect if you say, this is the price for property tax. Property tax is only going to take care of 5% of the total revenue to be used for the funding of schools. What I'm saying is, in terms of what Ray is saying, you want it to be appealing to the rich districts from which you get revenue. No matter what system of taxation you use, in theory, when you really equalize access to revenue, 50% of the people will say they are going to be expending more for the level of education, 50% will be paying less. It may not quite come out that way, but it's got to happen, because that's what equalization is. There's no way to eliminate that from any format or any discussion - depending, of course, on your definition of equalization.

LOWS - You can make it 60-40 by the way you move it around but it's got to come around the middle.

COHEN - That seems to me to be the case. Unless if you are going to try and be trying to get all the funds from the property tax. Mayor and some of the state and city tax, you know weighting and that's the only sources of revenue for elementary and secondary districts. Then you see the problem. The costs are not going to like it very much.

HUBBARD - In view of the fact that the Board and the Commission have not taken other operating expenses. For instance, we very hard less than 2 dollars a year, 20 cents in some districts for just municipal retirement alone. That's significant discrimination. It seems to me that at some point one of the serious decisions we have to make is whether we're willing to talk about having some things separate or whether we should include all operational costs in one category. For instance, I would be willing to talk about all operational costs at a 2 dollars tax rate because too many people would cut their tax rate on significant areas. It would hit everybody of any size. On the other hand, if you are talking about the educational tax rate and that is the expenditure level. I don't know what his figures are based on. The figures you talk about for average expenditures I thought had to do with average operational costs, whereas you're talking about only educational tax rate. We need to get those two together.

LOWS - I just wanted to run this thing through since we have available data, if you are going to talk seriously about going to power equalization, you're going to get a different set of data. What I'm essentially saying in this paper is that you can, based upon actual data, generate cost weighting measures between elementary and secondary and unit districts.

McLURE - This is an outline of a data from the weighting and weightings based on program cost differentials, using the norms of the National Educational Finance Project with a couple of exceptions. Items 3 and 4. Item 3 is simply to weight the junior high school level and Item 4 is the same weighting that is presently used in Illinois law instead of the national norm studied. I worked with several people in the State Office to see if these definitions are reasonable enough to obtain data to plug into all districts. The point of this is to get some estimates that we might use to compare with our present weightings. It does not raise the question of whether we should proceed to determine what the norms are in the state on these programs or any programs that might be defined. If the latter is done, we are going to have a problem of obtaining the data in time to put into this study. I am simply proposing that we use these norms because I think that they are really not too far from what would be a realistic norm. These were influenced very heavily by the twelve big cities in that national study. That sample contained 28 districts of which there were 12 big cities, 8 suburbs, and 8 independent districts (that is independent of suburban or urban areas). These are norms that are very close to the Chicago situation. Since the time of that study, I have added the analysis to about 20 unit districts in Illinois. They are very close to what I found in these unit districts that I've studied, ranging from about the smallest that we have up to the size of Springfield. So I think these will be good norms to use for purposes of estimation. They are far closer to reality than the present weightings, and for that reason we will have specifications for use. The latest year we can get full data will be 1970-71.

Let me proceed to the alternative that I have shown here and spend some time on the memorandum of May 22, based on this data, 1970-71. I tried to lay out some alternatives, starting with the base year of 1970-71, with current practice, using the present weightings of the state, all WADA and setting a grant out for the three district types - unit, high school, and elementary districts that would give to a district of dollars. I showed that there on page 2. In other words, we'd have a rank order of districts from the highest to the lowest of average assessed valuation for WADA. We have these other categories showing: A) the amount of expenditure provided by local mandate (the qualifying rate); B) the state distributive aid; C) the state and Federal distributive aid; and D) the local leeway money. The second alternative would be the current practice, with subtotals for these items that I've just mentioned, the new set of weightings, to represent a new measure of instructional unit.

There's one detail I did not show on page 3 - one would be the ranking of categorical aid - at least they would disappear in the new program weightings - they would not appear here as categorical aid. We could have a variation of this print-out to illustrate whether or not the program weightings give more money than the categorical money. That is possible to do and I haven't illustrated it. It's a print-out that could be recomputed. That alternative will only do one thing - that will illustrate the impact of the different set of weightings.

The second alternative has two parts, A and B. Alternative A would accept a foundation of \$1.00 per weighted unit - I shifted there from WADA to WPIU - Weighted Pupil Instructional Unit - to distinguish from our existing unit. All through these alternatives, I start with a mandated rate of \$1.50. Alternative A has a mandated \$1.50 - another level of \$2.00 - and one of \$2.50. Alternative B, Gross Rates for Current Operating Expenses, would include aids for transportation and the other categories not including capital outlay. This is a standard definition of net current operating expense. Money is contributed to that operational expense.

What we are doing in these alternatives is moving from a \$1.50 tax rate (let's go to Chart 1 to illustrate from that). I did not show the base line of where we are back in what I call Alternative 1. The first step that we could illustrate is the mandated local \$1.50 with a \$750 foundation mandated level, a \$2 rate, or its equivalent, on property tax mainly. I think we can talk in terms of when we say "local" meaning property tax as contributing to support. Actually this could be a state property tax and yield the same amount of money. A \$1.50 would contribute a \$750 foundation. There would be some districts above \$50,000 assessed value per unit. That's a significant figure throughout. Something will have to be done in the way of a save harmless provision for those above \$50,000 assessed evaluation. Let's bear that in mind throughout all the alternatives.

QUESTION - You use the term "save harmless" there.

McLURE - Yes, the term "save harmless" is a legal term which means you provide some kind of protection. You don't lower the expenditure level. You make a special provision to protect them in one way or another. The flat grant provision is a save harmless provision, in this definition, not strictly to protect what they have. What I'm saying is that group of districts would have to have some special consideration.

The \$2 property tax rate would generate a \$1,000 expenditure level but in doing so would leave a \$.50 leeway to be added. That would make the \$2.50 rate as a reasonable rate to put on property, I'm postulating.

The third expenditure level which might be set as a goal at some point in time, perhaps very shortly, is Alternative B, which would be \$1,250 expenditure level which should be generated with a \$2.50 rate - but with the added provision of a resource equalizing provision on the local leeway. In other words, if the Serrano principle were interpreted strictly, Alternative A would not be suitable. We would have to go to Alternative B and allow them to generate an equal amount of additional aid up to \$1,250 if they went up to \$2.50 property tax rate. Both ways could be done by either using the traditional Strayer-Haig-Mort pattern or setting the foundation expenditure level. I think that's essentially what Ray was saying in his when he defined expenditure level. So this really would require decisions on fixing the expenditure level and also making provisions for this flexibility for districts to raise the local property tax. Now if this would meet a court's test of leaving discretion at the local level and assuming that the property assessment problem is satisfied (that's a different issue, but I'm making the assumption that they're reasonably well equalized in terms of assessment), then this is a design for moving upward, equalizing upward. Equalizing local property tax burden and presumably the other provisions would mean that the state would have to divvy up the sales and the income taxes, which would meet some principles of equity, to supply the balance of the funds. But the essential thing that I see here is that the state would not arbitrarily fix the local tax rates but would set the limits and allow local discretion to move unilaterally toward greater equalization of the burden on property taxes. Also, the question of what to do with those upper limit districts, above \$50,000 assessed valuation, is a matter of judgment, assuming that the difference between the \$50,000 and the top isn't of such serious nature that the courts might decide you've got too much escaping taxation no matter what you do. There's an assumption underlying what I've indicated here. Either the state would have to recapture some of that property tax yield and put it back down under equalization and truncate the whole thing at these levels or allow them to go ahead and spend more money.

HUBBARD - One thing you did not say, I believe, Bill, is that this is predicated on a unit district concept and these figures would have been adjusted.

McLURE - I'm glad you raised that point, Ben, because later on we're going to talk about getting it to the question of placing an equal kind of situation on the dual districts as we heard here during Ray Low's presentation. We can go to the same kind of designs as shown in Chart 2, in a little different way. If we set this pattern up on a resource equalizing principle and mandate the \$1.50 rate but then use actual tax rate for equalizing upward as fast as they raise the local tax on property up to the \$1,250 limit, we would accomplish the same result. As a matter of fact, the print-out here would give us data to illustrate both of these models because I've used the same figures - \$1, \$1.50, \$2 - \$2 would yield a \$1,000 limit; \$2.50 would yield a \$1,250 limit. With the recent equalizing principle that I added - would have to add on Chart 1, for that \$.50 local leeway - that is \$.50 above the \$2 amount. It's just breaking out the whole design in a little different way. Actually, in many ways, this would be opening up the way for districts to start immediately raising their local tax effort. I think one point that should be raised is the question of restrictions that might be placed on the extent to which the district might raise the local effort in any one year. This will be what I might call a prudential principle. If a unit wanted to jump to \$2.50, it should be allowed to do so. That might be an academic question, but nonetheless there is a principle of truth that might come into play here, as to what might be reasonable in terms of the use of resources.

HEINS - I have a question, not being instantly familiar with these concepts. Does this resource equalizing model assume no mandate? It just says that if the local government tax is \$2.50, the state will fill in the difference between what that \$2.50 yields and \$1,250? Could they set a rate of \$2? It is not a mandate of \$2.50, is it?

McLURE - No, that's the limit. It is pure rhetoric to talk about power equalizing or percentage equalizing. It's a question of which rhetoric is best to communicate to the legislature and the public. I think the issue we have to face is not whether we have a different financial approach. It isn't. It's a different mathematical expression. The question is, which is the better communicative means to help explain to the public and the legislature?

HUBBARD - You are shifting your primary factor from foundation level to amount of equalization of resources per child. The expenditure level becomes the residual of the secondary factor.

McLURE - To shift to full state funding, in this case, I've eliminated the \$750 level assuming that's too low anyway. That's below the present average and, as a matter of fact, I think the \$1,000 may be too low. If you look at this pragmatically, Chicago is now about \$1,250. In other words, we may be talking about the \$1,250 expenditure level and the \$1,000 while applying either a state property tax or a mandated local tax of \$2 to the former level and \$2.50 to the latter. I put this in Alternative B to be kind of a compromise, or what I call "Near Full State Funding." In other words, if the state didn't want to go all the way, it could at least go the \$1,000 level or some other similar level and leave just a little add-on, say 10%. There is some kind of an adjustment factor that might be a means of handling this matter of determining the expenditure level, which we hadn't really dealt with. I think the paper we had this morning, in terms of determining costs by inferring from cost differentials, is nothing more than a factor analysis of what has been done. Although while I admit its important to have and to use, I don't think it's an absolute base for determining the expenditure level. We will have to grapple, in my opinion, with basic determinants, not past indicators of where we've been.

The question is whether such a local add-on, such as the \$.50 shown on Alternative B, page 8, could be one absolute means of determining expenditure level. If all local districts exercise that \$.50 figure then you will have to find some other means for justifying the level. This may bring the state back to an arbitrary criterion for making a decision. But that's going to be determined ultimately anyway. That's something that can't be avoided. Now let's turn to page 9 so that we may deal with the question of how we may treat dual districts comparable to units.

I took the criterion of the ratio of weighted ADA under the present method of weighting, as a basis of this determination. These figures were 1970-71, weighted figures according to the present method of weighting. The 65% of the total is elementary and 35% is high school. This means that if we take this basis, we have built in a 1.25 correction for high school. If we are to assume the WADA for 1970-71 is the same as your figure, Ray, of ADA expenditure, then what happens to my approach that make the difference (you had the 60-40) - is the 1.25 weighting gives the high school districts a little advantage. You wipe out all the advantage. That means that what you're saying when you take the expenditure level is that the elementary districts can generate as much money per pupil in ADA as the high school. What I'm saying is, we give them a 1.25 advantage in the high school districts. That's what our weighting in the law says. In the high school districts, they would take 35% - no, you give them 40% - it works the other way - I'm giving the elementary a break, you see. What you're doing, you're giving them the advantage of having built up a high expenditure level because they had fewer pupils and a better tax rate. So they've built up an expenditure differential which you are going to recognize. You're going to freeze that. So what you're doing is freezing the advantage and expenditure level they've acquired.

LOWS - Now you're saying that they're expending too much, that their expenditures are too high and the elementary is too low?

McLURE - I'm saying it's half full; you're saying it's half empty. I think what the 1.25 would do initially is soften the differential and whatever they might do with their resources ultimately.

HEINS - There's one substantive difference here and that's because the unit district gets a block of money and is free to divvy it up between the schools the way they want. In your case, you're divvying it out to the high school districts and to an elementary school district. What we might find in dual districts with your weightings is that the expenditures are only 25% higher per unit in the high school district or in the elementary district. But over in the unit district, it's a different practice altogether, reflecting the present expenditure pattern and it turns up 60% higher for the high school.

You might have a substantially different educational program if you're in the dual district simply because of the kinds of weighting you use to trace the dual district. It would be an argument to say that using present expenditure practices is at least a closer approximation to what currently goes on in both types of districts. Granted it's freezing in present experience, but on the other hand, just arbitrarily setting 25% is also freezing something in but at a different level.

McLURE - I think there is much to be said for using present expenditure practice but we just ought to understand what it is we're using when we do it. I suspect in looking at the tax potential, it would place less restrictions on some high school districts - obviously 40% places less of a restriction than 35%. The question is, can we test this after we get the data?

LOWS - In the past, high schools have been spending more because they've had access to additional revenue. I'm not sure that I want to lock them in on 1.6.

McLURE - The last time I looked at these differentials, nearly ten years now, I found that the high school - elementary expenditure differential was much lower in the unit district than in the dual district. I suspect it still is.

HUBBARD - What I did was to take some unit districts in isolation of the dual situation and break them down and I got the 1.6 variation. We weren't looking at dual versus unit. We were looking only at three or four unit districts.

HEINS - You were looking at the unit districts and what you found was that the breakdown for expenditures in unit districts was awfully close for what he found in dual districts?

HUBBARD - It's difficult to get the data without going to a district. You have to go to a district, break down high school and elementary, and determine its administrative costs. It's quite a process.

LOWS - What I'm saying is that based upon my data, you can draw a random sample of the total population, and keep drawing those samples and see if you come out with consistent values.

McLURE - I found that these things vary with expenditure level. There were at least three times that I examined from 1962 back to 1950 in this state. I was surprised to find that there was a greater differential in the lower expenditure unit district, Ben, than there was of those in the higher level. This has been true among the states. I will wager that there's less differential among the high expenditure elementary and high school districts than there is among the low expenditure ones.

STRONG - If you're talking about operating expense, I would think that in most unit districts that most of the Title I money would go into the elementary level.

McLURE - Yes, in recent years that has changed the picture.

STRONG - In other words, we're talking about 60 million dollars, and I imagine that 80 to 90% of that money goes into the unit districts because Chicago alone gets 55 to 60% of it.

HEINS - I guess the main point we're driving at is not what level you would set, but rather that there has to be acute awareness of the fact that when you're dealing with dual districts and passing out the money differential to those districts, you are, in fact, then setting the relative educational programs in those dual areas. Whereas in unit districts, they are free to determine for themselves how they're going to divvy up the money between their high school and elementary program. Whether that means we require good estimates of expenditures in the unit districts to determine how it is we treat the dual districts or whether it is we use current expenditure differentials in the dual districts period and let it go at that, I don't know but it's something we have to be aware of.

McLURE - What I suggest we use is not either one of the figures presented here this morning. I think we ought to get the new weightings based on program cost differentials as norms and apply them to the expenditures and see what we get by using your approach - expenditure level with a new weighting rather than the existing one. Compare the figure with the 1.25 built in along with the other weightings. I'm inclined to favor the expenditure level to protect the expenditures of the high school districts. I suspect it will pinch fewer districts on that approach than on the other one. Instead of using WADA, I'd like for us to use expenditure per unit, and see what that ratio looks like as compared to this other one.

HEINS - Are you talking about programs of school consolidation to get rid of the dual vs. unit district business or is that "beyond the pale"?

LOWS - Let me raise an issue that relates very well to what we're trying to do. We're talking now about locking the costs of elementary and secondary level based upon what our weightings become. Whenever you talk about weighting you are, in fact, raising some expenditure level and determining for the local districts how its money should be spent. Essentially weightings are desirable, but the district ought to be free to determine how it's going to use the money.

HUBBARD - No one has suggested in anything that he presented that this wouldn't occur as a result of weighting. What we may say is that by mandating we desire that it be furnished rather than to say that the money from this weighting must go to that area. I think that we have not considered that that would be mandated - that the 1.65 or 2.85 - that that must go to that particular kind of child, but that they must furnish it.

HEINS - But that only applies to a unit district. As long as you have the dual breakdown, then that doesn't apply there.

McLURE - What Ben is saying is that the unit district has the advantage of shifting from one level to the other, elementary to high school, where the dual wouldn't have it. I don't see how any state can use any kind of differential and freeze it in and leave it there and forget about it. I'd like to be sure we understand that point. When we talk about differentials, so far as a base of estimation, if the state is going to buy program costs differentials, it isn't going to buy fixed ratios that may be presented at the initial year. It's going to buy a process for determining cost differentials, year by year. In that case I don't think a district should shift money from the high school to the elementary level. I think if you had a system introduced for computing differentials and using them from year to year, the state might want to set some limits. We know very well that if you're introducing a program for the first time, for the first two or three years, that program may be exceptionally expensive, but once you build it up to the scale of operation where it becomes well stabilized for a given target population, then you can live with a ratio. But if you had an average ratio fixed in the law of any one of these, take remedial compensatory, 1.75, for a group of children, this might be too small for a district for the initial stages of that program. In some districts, the number of pupils might mean that they could hardly operate a program comparable for a small number of pupils, as another district with a larger number. I think we shall have to address ourselves as to how to administer the kind of thing a little later. The principle here is to get what might be an average estimate.

STRONG - Bill, I was pretty well impressed with that last set of weightings. What I didn't understand was how we'd measure the remedial compensatory, the 1.75. I guess that would have to have some state regulations to go along with it to determine who qualified under what term. While I think it makes good sense, it sounded a little hard to handle.

McLURE - Actually, this is something that the state office will have to rationalize. I have found in this study, for example, that there are some students in special education who are also in special vocational programs. They are students who need to learn a trade to make a living. I'm using the example to illustrate how that overlap is a problem. They can rationalize that.

STRONG - I can handle that. I was troubled by that line between learning disabilities and remediation as they relate to Federal Title programs.

McLURE - There are Title I equivalents in elementary schools that are not classified as Title I. There are some pupils that are not covered under Title I because of the peculiar provisions of Federal law, who really belong in remedial programs. Let's assume the Federal aid fades out of the picture and we forget about income of families as a measure, which the Federal Government used because it didn't have anything better that can be taken care of by measures that might be developed. The impression that I get, as of today, is that the State Office won't have much trouble filling out that form.

I put in three levels to meet the needs of some states where they have three levels, and want the three-level weighting. You wouldn't have to weight your programs for special education if we didn't have dual districts. You could give them both the same weighting.

SCHOEPLEIN - Bill, could you clarify the program cost differential as recommended by NEFP? Are they weighted averages of actual differentials?

McLURE - They are empirical data, actual averages in 28 school districts - actual expense in the 1968-69 school year.

SCHOEPLEIN - My second question is this: You have four basic methods and six models in your proposed study district by district. Was it your intention here to include these cost differentials as well as the actual expenditures?

McLURE - We could make a dual run of everything. We could run the present ratings and the other.

SCHOEPLEIN - When you run this through here, that does not include the cost differentials, is that correct?

McLURE - I'm assuming that when we run Alternative 1 using the present weighting, we can also run the alternative of the new weighting and examine them to make a decision on whether to keep the present weightings or go for the other.

HEINS - There is one other question involved, and that is essentially that it's really a decision of whether you're going to stick with the categorical program built upon a foundation program or whether you're going to do away with the categorical way and move to the new weighting system.

McLURE - We think we ought to print those out and show them all kinds of ways.

HICKROD - Okay gentlemen, I'll just take ten minutes on this. In New Jersey and in California there is a chance that the allocation system that I've basically outlined here may go through. If it goes through, then it sets a national trend in this direction and we ought to consider this. There's only one fundamental difference with any of these models. In fact, this is an extension of the last model, which should be B3. What Governor Kahill has introduced in New Jersey and has been introduced in California is that they're going to full state funding on the basic or foundation program. They're going to equalize everybody up to a certain level first, then operate the equalization formula over the top of this large weighted block grant. Now, you can operate all kinds of equalization formulas over the top of it, but the one they happen to be presenting in New Jersey is the percentage equalization formula which is used in New York, Rhode Island, Pennsylvania, Iowa, Massachusetts, and Vermont. You could operate a resource equalizer over the top of it. I suppose you could dream up a Strayer-Haig model and put that over the top of it. The essence of this thing is, you divide a large weighted block grant first and then you operate your equalization formula over the top of it. There is no local leeway that is normally understood with these models. Everything is equalized. The state shares all the way up. That's one of the major distinctions.

The third step on this is that it contains the statewide tax rate - what they're recommending in New Jersey is \$1. I understand it's going to be higher than that in California. I also understand that New Jersey is recommending equalizing up only to the state average and California is going up to the 66th centile. That's really moving for full state funding if you provide this weighted block grant all the way to the 66th centile. In New Jersey the statewide property tax is deliberately set very low at \$1. This is a strategy to give property tax relief and this is a very important part of the whole package. It has been practically dictated in New Jersey and to some extent in California, that you will not get any new money for the schools, unless you provide property tax relief. Part of your bundle has to be property tax relief, otherwise, it's no-go politically.

HUBBARD - There's another half of that coin that I hope we will consider. I haven't heard anybody say that once you get more state aid that you are also going to receive tax relief. We keep saying that you can't get one without the other and nobody has said that this may not be the case. At a time when the demand is that we move towards significantly more money, we may get ourselves boxed in to an absolute reduced property tax.

HICKROD - I know, but in California that is the political climate. You cannot get more state money for the schools unless you provide property tax relief.

HUBBARD - I think practically that that has already been said in Illinois which makes us deal with an almost impossible task.

COHEN - I know I'm going to sound like a broken record, but when you talk about a \$1 rate, it doesn't mean a thing to me. For example, the Fleischman report in New York is going to raise the property tax, even though a lot of people may not know this when they look at a \$2 rate. A \$2 rate may seem low but it's going to raise the New York City property tax rates by 20 to 25%. For some states, a \$1, true value, will actually be raising the property tax.

QUESTION - When you talk about weighting, does that mean that the taxpayers will pay less taxes and get more state aid if they have weighted pupils?

BRADSHAW - Yes, per weighted unit. It depends upon the level of guaranteed expenditure.

McLURE - The variation ranges from about 1.15 up to about 1.35 for Chicago. The question is whether or not in all of the categorical aids, Chicago is getting more than the figure the program differential gives has to be decided. I figured it out rather closely with Art Laney, recently. He's been trying to give birth to some new weightings. His overall weighting comes out very very close to their figures after they've applied all the categorical aides and the density weightings. It gives them a little more than they're now getting.

HEINS - I think there's one misconception here that we can clear up quickly. I think you are wrong, Fred, about the tax rates. The mandated tax rate of \$1 or \$1.50 is on the assessed value of the property and it doesn't matter what the weightings of the pupils in the district are. The people in that district pay \$1.50 per the assessed value of their property. They pay the same amount of taxes. All it has to do is with the amount of money they get from the state and they'll be paying the same amount of taxes, but they may get more or less money from the state depending upon whether they've got more or less people in the categoricals. The real problem, as I see it, has to do with administration of that kind of program. You're going to find propensity for people around the state to have categorical needs under these kind of weighting arrangements. It will have to be very closely administered with some controls put on it, otherwise, if I were running a school district, and I could classify half my kids as educationally deficient and qualify for a 2.15 rating I would do it. So I think that that is the problem. It doesn't have to do with the amount of taxes under any of these weightings.

HICKROD - Gentlemen, if you have any other suggestions to give to Professor McLure on alternative models, I suggest you do that soon. Okay, we have two more subcommittee reports, one on revenue and one on broader ramifications.

COHEN - Revenue Presentation - This subcommittee, at least as I see it, is going to make good use of the Governor's Task Force on School Finance. I think the timing on this is going to work rather well because, first of all, the other committee has set a date of November to complete its work. There are a lot of resources available to the Governor's committee. I don't mean to put down this particular committee, but there are a number of people working almost full time for the Governor's group. So, in the best sense of the word, I think we will do our best to exploit the research and data that they've come up with. What I've tried to point out here is the kind of work that is going on both in terms of what I think our subcommittee talked about and what the revenue committee of the Governor's task force is doing. As you know, there are a number of us on both of these committees. Don Eslick and myself are on the revenue side of the Governor's committee.

Let me go through very briefly what I've listed here. First of all, I've indicated here that we will probably have various state tax sources which could be utilized to fund education, in the sense of being levied either at the state level or at the local and/or state level. I've listed some obvious ones, the income tax, sales tax, property tax, value-added tax, and a number of others such as lottery tax, stock transfer tax, real estate transfer. For many of these, it'll be just looking at projections. (That is to say, what an increase in the income tax, assuming certain rates of growth in the economy, would bring in the total number of dollars and how many dollars could conceivably be used for funding of elementary and secondary education.) I might add also that personally, I am going to take a look at some aspects of a statewide property tax. I am involved in a modest sense with some work on the industrial-commercial property base in the state. It's amazing how little we know about this base. I've tried to get at it in Cook County where you think it would be obvious. We can get the assessed valuation, but trying to find the real or true value of property in Cook County is very difficult to do even though they have a classification now which extends to 40 different classes. They just had a study done by the Real Estate Research Corporation which tells them that they should redo their whole system.

Number 2 is really not a very sophisticated study that I understand will go on in the Budget Bureau. It is very similar to the Census Bureau and the ACIR data that is now available on how much of the various state and local tax structure is on business and how much is on individuals. It is not really the final burden. It's who's paying the tax in the first instance. They intend to look at these and try to make some estimates as to what changes in tax structures might do in terms of breaking down the individual vs. business. I am trying to get some of this in terms of Cook County which might conceivably add to this at least in terms of the property tax.

Number 3, for those of you who are familiar with the literature in Illinois, goes back to a couple of dissertations at the University of Illinois. They intend to look at this and make some estimates of what would happen to this burden, by income class, if we change, let's say, away from property tax or the present significance of a property tax to a greater reliance on the income tax and other sources of revenue.

Number 4 is the problem of the responsiveness of the various tax sources to the economic growth of Illinois. This is the age-old question of elasticity. To get to this problem, Don Eslick has raised questions in this committee about the tremendous reliance on a property tax in terms of funding elementary and secondary education. I would like to see what difference it would make, if we changed the structure of our state and local tax system in terms of education to something possibly more or less regressive. I think in the minds of many hopefully less regressive. There are a number of things I classified under "other." I didn't mean necessarily that these are unimportant but there are at least four or five other things going on concurrently. The question has been raised about the possibility of the income tax as a local source of revenue or the source of revenue for the school district, per se. What problems would be raised in the administration of this, let alone the question of what kinds of income would be generated from different school districts? What difference would it make if you changed from a property tax? What would happen to the Monticellos if we switched from a property tax over to an income tax?

The B part is the kind of question that many of us have raised at least once or twice in this committee - the notion that we know very little about the present burden in terms of who really pays for education. The idea here would be to take hypothetical families in some sort of sampling throughout the State of Illinois and look at different people of different income levels; geographically look at different business firms, and different kinds of business firms. It'll make quite a bit of difference whether you're talking about a heavy industrial firm vs. an insurance company, for example. And what difference it would make to look at our present structure in terms of heavy reliance on the property tax to switch over to something different. In other words, what would this do in terms of changing the burden? Again, I might add, it would emphasize the initial impact and not say very much for the shifting of the tax, especially for industry unless you made certain assumptions.

The C part, the side effects, which gets into, to some extent, an aspect Bob Schoeplein was going into, but I think from a much narrower standpoint than what he is talking about. As I understand this, the budget people have already talked about the Department of Ag Economics at the University of Illinois. They apparently have some interest in looking at the question of what would happen if we took off the property tax completely. I may be somewhat unrealistic, to put it mildly. Or what would happen in terms of the windfalls that would occur, at least as we reduce the property tax or level it off.

If we're going to get some general revenue-sharing from the Federal government (an example on the estimates now - Illinois might get 300 million dollars over the next fiscal year, about 100 million dollars of it to go to the state, and 200 million dollars to go to local governments) - the question was raised, if local governments are going to get 200 million dollars, what about reconsidering whether we ought to be rebating the 1/12 of our state income tax, as we now do, to local governments? Maybe we ought to consider that that 100 million dollars should be spent for something else, such as education. This is a possible source of revenue although it obviously has a lot of problems. Also, some people might raise the question about the municipal sales tax. Should this be reconsidered? Should some of this revenue conceivably be looked at in terms of education?

SCHOEPLEIN - Broader Ramification - I will ask you to look at page 3 of the subcommittee memo which lists the possible topics that the Broader Ramifications Subcommittee could study within our guidelines. The number of topics that one could study under Broader Ramifications will depend upon the manpower and the financial resources that we have within our subcommittee. I may say this for the benefit of the new members of the commission, the Broader Ramifications means this: That if the local property taxes may change among school districts, then as a consequence of these changes, households and businesses may respond. In doing so, through, for example, movement or migration within a short period of time, say two years or less, we could have feedback into school finance. Bob Burnham and I have discussed what this might mean in terms of capital construction within a metropolitan area.

Somewhat by accident, there are two study groups now, one on the Governor's Commission on rural areas and within this group we're studying urban areas. We've broken down our project into five specific steps. It's not surprising that three steps take us beyond the calendar of this committee because we're interested in the broader ramifications. Step 1: The completion of Step 1 will coincide with the progress report that is contemplated the first of this Fall. Step 2, which is a self-contained package will coincide with our final report so that we will have packaged reports on broader ramifications that I think will be relevant to this committee. Lastly, this is a specific study of how changing school finance might affect the metropolitan areas. You will recall that we did a work paper that I distributed to all committee members on the 20th of March. That paper was updated for a preliminary proposal to Washington for funding so that we could trace the changes through the Illinois system for the next few years.

Between March 20, when we did the working paper, and April 20 when we submitted the preliminary proposal, we clarified quite a bit of our thinking. So the preliminary proposal in some sections does look significantly different from

that working paper. We received what is called an affirmative response from Washington, which means that they're pleased to have us rewrite the preliminary proposal for formal submission the latter part of this week. We're going ahead with our schedule and we're maintaining our work schedule. We will have a preliminary report on the impact of changing school finance in metropolitan areas for the target date that has been suggested, September 1.

HEINS - Before we break up, I would like to take about five minutes to mention some results of a study that we've been doing at Illinois. I'd like to share with you the first results just so you can think about the implications of it. The point to this is that we can talk about formulae and weightings and expenditure levels and all of that but in any such move that we may contemplate, it remains true in all of these options, that we're turning over to the state legislature power to determine the scope of the educational program of the state. That power essentially at the present time rests with the local school districts. That's something we have to think about. The legislature might buy our system but at a foundation level \$300 below the one we think about. They are the ones that are going to spend the money and will have to raise the taxes and make the decision. We may find that we would recommend a particular system, maybe Bill's Alternative A 1, at a level of a \$1,000 or \$1,250 and the legislature might buy the same system at \$750. This is a worrisome kind of thing. It led me to ask the question, "Does education vary among states, according to the educational expenditures in the state in terms of what percentage of the tab the state picks up"? In other words, do we find that in a state where the state comes forward with 40% of the education money that that state spends more than the state that picks up only 20% of the tab? If we go more for increasing state finance, can we be convinced that that means that there will be more expenditures for education - that the educational program will be increased? That's the purpose of this very simple study. If each of you have your papers, the results are amazing and interesting, although very aggregative.

The crucial variable here is that first one - state expenditures relative to total expenditures. That factor varies around the country from about 20% to about 50% - that is to say some states pick up as little as 20% of the tab and other states pick up as much as 50% of the tab for elementary and secondary education. These are 1968 figures which are the most complete we could get for all the variables we needed. They may be higher now, but the bulk of the experience was within this range. This is state expenditure as a percentage of state and local. We're using the technique of multiple regression, which some of you understand and some of you might not, and it indicates that in Variant 1 and Variant 5, this is a totally insignificant variable in explaining the educational programs of the states. Personal income is the strong explainer, as we would expect. Federal aid has something to do with it as well as the tax structure. The amount of money that the state puts out has literally nothing to do with the scope of the educational program of the state. The crucial variable number in statistics, the one across from the S, which is what we call the standardized progression coefficient, at .2002 is very miniscule - and the one across from the T, which is the T ratio, is .21, meaning, forget it. It has no effect. The simple and first implications of this is that based upon experience in other states that we would be counting on too much if we think by moving to increased state funding, that the total educational program is going to increase. What this implies is that it tends to tell you how state legislatures really behave and how local school districts tend to behave. We may have to face the fact that any system we propose that calls for increased state funding on the educational program, ranging from the present level up to 100%, will leave us with a system in which the educational program will be no higher as time passes but be lower in some areas, and higher in others. I am going to continue looking at this, along with some other things and see if we can get some additional insight. I want to share these results with you today, even though they came in at this very late moment.

HICKROD - It would be interesting to take your same variable here, the ratio of state expenditures and total expenditures, and predict the amount of variance in expenditure within a state. That would be going on the grounds that one of the reasons for full state support is to narrow the variable. I think you'll find some interesting results.

HEINS - I'm trying to work in my own way on both sides of this thing. I'm working on the question of variance within the state under Alternative state models. There's quite a difference built in the kinds of questions I'm interested in asking and I'll share them with you at a later date.